The Decay of Rationalism

By

Arthur Holmes

Assistant Professor of Psychology
University of Pennsylvania

3781
P41H
UNCLASSED
DISSERTATION

Philadelphia, Pa., 1910

STANFORD UNIVERSITY LIBRARIES
WITHDRAWN

Decay of Rationalism

BY

Arthur Holmes
Assistant Professor of Psychology
University of Pennsylvania

THESIS

Presented to the Faculty of the Graduate School of the University of Pennsylvania in Partial Fulfilment of the Requirements for the Degree of Ph. D.

Philadelphia, Pa., 1910

KEY TO REFERENCES.

Wherever possible, quotations from Leibnitz are made from "The Philosophical Works of Leibnitz," translated by George Martin Duncan, 1890, and marked D. The same quotations are also referred to the originals found in "Die philosophischen Schriften von Gottfried W. Leibniz," by C. L. Gerhardt, Berlin, 1882, 7 Vols. and marked G.

THE FOLLOWING WORKS OF LEIBNITZ ARE QUOTED AND ABBREVIATED:

An. D. Phil.—Animadversiones in partem generalem Principorum Cartesianorum, G. V. 4, pp. 350-392; D. pp. 46-63.

Car. D. of Ex. G.—Art. XI, XII, XIII, G. V. 4, pp. 393-406. Trans. by D., Cartesian Demonstration of the Existence of God, pp. 132-6.

L. & C.—Streitschriften swischen Leibnitz und Clarke, G. V. 7, pp. 347-421; D. pp. 287-362.

L. Ess.—Sur l'Essay de l'entendement humain de Monsieur Locke, G. V. 5, pp. 14-19, D. pp. 94-99.

M.—Monadology, (No subject in the original) G. V. 6, pp. 607-623; D. pp. 218-232.

N. & G.—Principles de la Nature et de la Grace, fondes en raison, G. V. 6, pp. 599-606. D. pp. 209-217.

N. E.—Nouveaux Essais sur l'Entendement par L'Auteur Du Systeme Monad, V. 5, pp. 39-503; D. pp. 287-363.

O. of Th.—De rerum originatione radicali, G. V. 7, pp. 302-308. D. pp. 100-106.

R. Met.—De prima Philosophiæ Emendatione, et de Notione Substantiæ, V. 4, pp. 468-70. D. pp. 68-70.

Sp. Eth.—Ad Ethicam B. d. Sp. Bemerkungen von Leibniz zu den ersten drei Theilen der Ethik, V. 1, pp. 131-39; D. pp. 11-26.

Th. on Tr.—Meditationes de Cognitione, Veritate et Ideis, G. V. 4, pp. 422-26. D. pp. 27-32.

Wisdom—D la Sagesse, G. V. VII, D. pp. 82-85. D. pp. 205-208.

WORKS OF WOLFF QUOTED AND ABBREVIATED:

K.—Vernunftige Gedanken von den Kraften des menschlichen Verstandes, 5th E., 1727, first published in 1712.

G.—Vernunftige Gedanken von Gott, der Welt und der Seele des Menschen, auch allen Dingen ueberhaupt, Ed. 1752, first pub. 1719.

L.—Philosophia Rationalis sive Logica, 1728.

O.—Philosophia Prima sive Ontologia, 1730.

P. R.—Psychologia Rationalis, 1734.

WORKS OF KANT QUOTED:

Principorum primorum cognitionis Metaphysicae nova Delucidatio, 1755.

Metaphysicae cum geometria junctae usus in philosophia naturali cuius specimen I continet monadologiam physicam, 1756.

Die falsche Spitzfindigkeit der vier syllogistischen Figuren, 1762.

Der einzig mogliche Beweisgrund zu einer Demonstration des Dasseins Gottes, 1763.

Versuch den Begriff der negativen Grossen in die Weltweisheit einzufuhren, 1763.

Untersuchung uber die Deutlichkeit der Grundsatze der naturlichen Theologie und der Moral, 1764.

Traume eines Geistersehers, erlautert durch Traume der Metaphysik, 1766.

De mundi sensibilis atque intellegibilis forma et principiis, 1770.

THE DECAY OF RATIONALISM.

INTRODUCTION.

German Rationalism had its origin in the work of Leibnitz, reached the zenith of its development under the leadership of Wolff and his contemporaries, and was superseded by the philosophical system of Kant. Its decadence has been generally attributed to the influence of English empiricism. The salient points of this view are: (a) Rationalism was superseded by the inductive method after a long controversy between English and German thinkers wherein (b) Leibnitz sketched out the system and especially advocated the theory of innate ideas against Locke; (c) Wolff systematized and popularized Leibnitz in Germany, and (d) Kant, yielding at last to empiricism as presented by Hume, was compelled to restate the whole problem of experience in such a way as practically to surrender the ideals of his school.

Contrary to the foregoing opinion, this monograph holds that the most important factor in the passing of rationalism was its own internal decay. It endeavors to show that independently of the English school, Leibnitz, Wolff and Kant were forced by motives inherent in their own system so to modify their basic principles that their original intention of perfecting an all-inclusive deductive method became impossible. This necessity arose from difficulties within and not from without. Upon such a theory the whole emphasis is shifted from external to internal motives.

Such a thesis does not, of course, deny the presence of any external effects at all. All three writers were amenable somewhat to the arguments of empiricism. Kant, especially in his later critical writings like the Critique, probably had his own independent view verified and illuminated by the oppostion of Hume. But such influences were incidental only,—corroborations of conclusions already arrived at, revealing as much the weakness of empiricism as the shortcomings of rationalism. In short, denying the dictum of Hamann, it is insisted that without a Hume there would have been a Kant.

Upon the play of motives involved, the obscurity surrounding this period of thought is evidenced by the varied opinions of commentators. For example, few of them will agree upon the precise time when Kant felt the quickening influence of his "awakener." Some are cautiously general while others are each certain of conflicting dates. Windleband quotes a number of authors without himself hazarding a guess; Falkenberg mentions 1760; Ueberweg is vague, saying that it is only "in a later period, beginning with 1769, that he (Kant) developed the critical philosophy;" Fischer points to the Dreams of a Ghost-Seer (1766), marking the zenith of Hume's influence though he believes it was clearly present as early as the treatise on Negative Quantities; Hoffding says "about 1762-1763" and Adickes mentions "the latter part of the sixties."

Equally great is the disagreement upon the amount and source of the influence. Newton, Locke and supremely Hume are mentioned as English contributors; Euler is named on the German side with Kant's teachers, Krutzen and Teske; while Wolff is generally made the forerunner of Kant and the echo of Leibnitz. Though the commentators are at such variance it is still possible to arrange them in a progressive scale according to their approximation to the view of this paper.

As an expression of what might be called a typical attitude the following quotation from Falkenberg manages to include nearly all the salient features:

"Kant felt himself to be the silencer of skepticism; but this was because he had received the strongest impulse to the development of his Critique of Knowledge from Hume's inquiries concerning causation. Brought up in the dogmatic rationalism of the Wolffian school to which he remained true for a considerable period as a teacher and writer (till about 1760) although at the same time he was inquiring with an independent spirit, Kant was gradually won over through the influence of the English philosophy to the side of empirical skepticism. Then as the result, no doubt, of reading the *Nouveaux Essais* of Leibnitz, published in 1765, he returned to his rationalistic principles until, finally, after a renewal of the empirical influences, he took the position crystallized in the *Critique of Pure Reason*. . . . "[1]Very little removed from this view though somewhat more distinct in its indication of Kant's pre-Humian independent spirit, is the opinion of Adickes. "At the beginning of the sixties," he says in his Introduction, "certain empirical elements entered into his exact rationalistic theories. Through criticism of the ontological proof of God—an endeavor to deduce the existence of God from the idea of him—he came to the conclusion that existence could never be concluded from ideas alone but must always be given through experience. . . . The principle of rationalism is therefore given up, for Kant concludes that through pure reason nothing can be concluded concerning the existence nor the causal nexus of things. In the course of the sixties, the empirical element became continually more important in Kant's thinking and is especially prominent in the Dreams of a Ghost-Seer. (1766)" . . . According to my opinion, whether due to the fact that he then first read the part of the Essay cognate to his own thinking, or that he then first perceived the true Humian viewpoint, the influence of Hume to which Kant himself often referred as the particular motive for the Critique, fell in the later sixties."[2]

One of the stanchest upholders of the orthodox view is Kuno Fischer. In his History of the New Philosophy he devotes many pages to the rationalistic development from Leibnitz, and while admitting the electicism of Wolff, he is emphatic in his declaration of Hume's influence as the sole cause of Kant's revolutionary change. The climax is reached in his cry, "without Berkely there would have been no Hume; and without Hume, no Kant!"

He believes that Leibnitz truly felt he had established the deductive system, had rationalized psychology, cosmology and theology, though he left no system nor wrote in the speech of his people. This double duty was well performed by Wolff. "He formulated metaphysics as it came from Leibnitz and so founded the school of German philosophy which, according to Bilfinger's designation, is called Leibnitzo-Wollfian. . . ." In the process, however, the essential opposition between empiricism and rationalism compelled a compromise. "When principles are so deeply imbedded in the human soul as these two tendencies of science, and so fully expressed and developed as both were by Locke and Leibnitz, a compromise necessarily arises out of the antithesis. Hence, quite naturally comes the attempt to achieve the desired but yet unattained universal system by the electic process. This attempt could come only from the side of rationalism and was made by Wolff. At first glance the scholastic form hides the internal unsystematic and incoherent character of the whole" but it constantly crops out in such open eclectics as Lambert.

---

[1]History of Modern Philosophy, Richard Falckenberg, trans. A. C. Armstrong, 1893, 2d German edition, p. 323.

[2]Immanuel Kant's Critik der Reinen Vernunft, Dr. Erich Adickes, 1889.

So much for the Wolffian system in which Kant was bred and early nourished. From the faith of his early days he departed, according to Fischer, and comes most closely to complete skepticism in the Dreams of a Ghost-Seer. "Here I find our philosopher in his greatest agreement with Hume. He is pursuaded by the Scot that metaphysics is and can only be a science of the limits of human reason. . . . And Kant shares all these conclusions because he is agreed with Hume that our reason can compare sensations only according to the principles of identity and contradiction, and therefore, can conclude only analytically. . . ." Further, he adds that "The influence of Hume upon Kant for the latter's development to the critical epoch is so important" that it deserves special mention. "Kant, already inclined toward empiricism, accepted its tendency with full determination, and followed it to the skeptical point of view. . . . Both occurred through Hume's influence. The one who first explained this view (i. e., the concept of the ground of reality is a percept) to our philosopher and enlightened him upon this point, that person served as guide or light for him upon the road from the Examination of Negative Quantities to the Dreams of a Ghost-Seer. That man was Hume—he alone, and that according to Kant's own testimony, so that every doubt about it is excluded."[1]

"We have given the state of the case in completeness and it attests, first: Kant in his comprehension of the problem of the ground of reality, as he formulated this question in his Examination of Negative Quantities, goes back to Hume and to nobody else. It attests, secondly, that Kant, when he wrote the Dreams of a Ghost-Seer, thought as nearly as possible as did Hume himself and according to the proper Humian point of view obtained from Hume himself."[2]

While the general view of the influence of Hume upon Kant is admitted by the historian Ueberweg, he nevertheless confesses that Wolff's system was not the rigidly rationalistic scheme generally supposed but it contained many empirical elements though in a secondary and incidental way. "On Kant's earliest philosophical opinions the philosophy of Wolff and the physics of Newton have a controlling influence." "Kant traces the genius of his Critique of Reason to the stimulus which he received from Hume." In his last edition Ueberweg further says: "Wolff appropriated the conceptions of Leibnitz . . . supported them partly by new arguments but also partially modified them." In general his system is based upon the assumption that "It is possible to bring rational knowledge to perfection by deduction. For that purpose one fundamental principle must be found from which everything can be deduced by strict logic. This fundamental principle is for him the Principle of Contradiction upon which is also based the Principle of Sufficient Reason. . . ."

"Only those judgments are true which are derived from the analysis of the idea of the subject. True, many empirical elements are to be found in Wolff's logical deductions, and it is possible only by such means to make his rational structure agree with the real world. Indeed, according to Wolff the empirical sciences . . . are merely to establish the reality of those things which have been deduced from first principles in the rational philosophy. Merely corroborations of rational knowledge are obtained through the empirical, and the first kind only is clear and distinct, the latter unclear and confused."[3]

---

[1]Geschichte der neuern Philosophie, Kuno Fischer, 4th ed.; 1298; Vol. 4, pp. 30-32, 293, 294.

[2]Ibid, p. 295.

[3]Friedrich Ueberwegs, Grundriss der Geschichte der Philosophie der Neuzeit, Max Heinze, 10th Ed., 1907, Vol. III, p. 227.

The more cautious, more analytic writers are represented by Windelband, who is disposed to give Kant due credit for his own independence of thought, without, however, definitely breaking with the accepted view. The following quotations give his position. Kant "was forced to become convinced by his own progressive criticism in his constant search for truth, how little the rationalistic school system satisfied that claim which it made. But the more, also, was his vision sharpened for the limitations of that philosophy which empiricism developed by the aid of the psychological method. In studying David Hume this came to his consciousness to such a degree that he grasped eagerly for the aid which the *Nouveaux Essais* of Leibnitz seemed to offer toward making a metaphysical science possible."

"For Kant's theoretical development the antithesis between the Leibnitz-Wolffian metaphysics and the Newtonian natural philosophy was at the beginning of most decisive importance.

"In theoretical philosophy Kant passed through many reversals. . . . In his writings after 1760 he attained to the insight that metaphysics in the sense of rationalism is impossible, that philosophy and mathematics must have diametrically opposed methods, and that philosophy as the empirical knowledge of the given cannot step beyond the circle of experience.

"The progress from there on to the *System of Criticism* is obscure and controverted." Concerning this development and the time of influence by Hume he quotes a series of authors, though he has previously said that "the epistemological system, which he erected upon the principle of virtual innateness extended to mathematics, very soon proved its untenability and this led him to the tedious investigations which occupied him in the period from 1770 to 1780 and which found their conclusion in the Critique of Pure Reason."[1]

A greater independence of Kant's development is admitted by Hoffding, who remarks that, though many years later Kant announced Hume as his awakener, "it may be noted as a proof of the independence and continuity of Kant's philosophical thought that it is impossible to find any point in his development where it is absolutely necessary to assume a strong influence from some other author to understand its subsequent course."[2]

From these sources, indicating the more usual attitude toward this disputed period, we now turn to an author who expresses in many respects the position here taken. Friederich Paulsen, in his "Versuch einer Entwicklungsgeschichte der kantischen Erkenntnisstheorie," while confining himself to a more specific problem, yet frequently makes statements on the more general subject of rationalism which show his belief in the inherent insufficiency of that system. One of his clearest is the following:

"It remains further to be shown how these very principles of rationalism burdened from the beginning with an internal uncertainty, were brought into Germany. *German Rationalism bore within itself the germ of its own dissolution.* In its fundamental principle the opposing tendencies of empiricism and pure rationalism were held together externally by the proposition that by the principle of sufficient reason truths of fact could be known by pure reason without such truths being necessary according to the law of contradiction. The

---

[1]Windelband, History of Philosophy, trans. James H. Tufts, 1895, pp. 533-535.

[2]Harald Höffding, History of Modern Philosophy, trans. by B. E. Meyer, 1900, Vol. II, pp. 41, 42.

two tendencies must of necessity fall apart as soon as the fundamental principle should be investigated without the special Leibnitzian metaphysical and epistemological assumption."[1]

Of this fundamental principle he further says: "If one pursues the consequences of this viewpoint with reference to the theory of knowledge it would hardly be possible to arrange them in a harmonious result. From some of them it appears clearly enough that he (Liebnitz) had in fact, given up the possibility of the knowledge of things by means of pure reason. . . . The complete agreement of the Leibnitzian theory of knowledge with the English empiricism is thereby expressed. But Leibnitz is not to be taken for an empiricist."[2]. The Nouveaux Essais show that.

Of the attempts at rational construction made by Wolff and other lesser disciples and elucidators of Leibnitz, Paulsen is even more caustic in his criticism. "The time between Leibnitz and Kant for the elaboration of the theory of knowledge in Germany is empty space" is his summation of their efforts. This opinion is modified, however, by the following: "While the productions are not insignificant for the comprehension of the problem which they handle, they do not bring it one step nearer solution. The inner duality between the rationalistic and empirical tendencies remain the same as they were with Leibnitz, or are brought into sharper opposition; and one can say that, insofar as the necessity for a differentiation between these two halves was made more stringent, just insofar is the work of this period not in vain. The empirical elements which with Leibnitz were the weaker, were strengthened by the gradual, progressive impulse of Lockian thoughts. But they serve in no way to eliminate the rationalistic principles of the scientific method from the system, but arrange themselves immediately with the rational as useful and important truths. Indeed they are so far from being a hindrance that the rationalistic view returns to more distinct and more precise expression."[3]

Leibnitz' "followers, who in spite of their greater appearance of system thought less connectedly on the whole, decide in favor of one view. Obeying the nod of the master, it is true, they referred the principle of sufficient reason back to the principle of contradiction, and thereby obtained a system of pure rationalism. This did not hinder them from recognizing that from experience some truths could be gained, which could be included in the general body of rationalistic knowledge without further analysis. With Leibnitz the opposition between these elements was so obscured by unclearness that they appear compatible. With these writers, however, the one-sided and more clearly formulated principles were joined by mere juxtaposition in one system."

"At the head of the line of those who permitted reason and experience to stand co-ordinated with one another, stands Wolff. . . . Though he early reduces the principle of sufficient reason to the law of contradiction, nevertheless he actually proceeds in such a way as to include empirical data in the construction of his rationalistic system. Until the latter is completed, the empirical method can furnish useful material for definitions. . . . How such an inweaving of empirical elements in a rational, demonstrative science is possible,

---

[1]Versuch einer Entwicklungsgeschichte der kantischen Erkenntnisstheorie, Dr. Friedrich Paulsen, 1875, p. 23.

Paulsen's latest statement on his position of 1875 is to be found in his work, "Immanuel Kant, His Life and Doctrine, 2d ed. 1899, Part I, §V," where he says, "The results still appear to me valid with regard to essential points."

[2]Ibid, P., pp. 16, 17. [3]Ibid, pp. 23, 24.

is never the question with Wolff. One does not do him an injustice, therefore, when one says that he really did not have a theory of knowledge at all.

"This remains the condition of things until the time of the Critique of Pure Reason."[1]

In dealing with the specific problem of Kant's development, after stating that his purpose is to give a historical explanation of the Critique, Paulsen proceeds in his Introduction:

"Kant's starting point is the rationalism reigning in Germany since the time of Leibnitz. At first concerned but little with theories of knowledge, he accepted the Wolffian elaboration of it. . . . As soon, however, as he began to make method prominent in his researches, he was driven in another direction. The principle of sufficient reason . . . was the point at which he stumbled. In an independent development he continually advanced farther from his original position until he assumed a view which agreed essentially with the theory of empiricism as expressed in the formula: Knowledge of things never comes from pure reason but only from experience.

"At the end of the sixties a contrary current set in. His thinking now received that direction in which he remained and which fixed him finally in the so-called critical system. The impulse to this reconstruction came from the systematic study of the English philosophy together with the conviction that the terminus of his previous empirical progress was complete skepticism; skepticism in the sense that general and necessary judgments concerning objects are impossible. As he was not willing to proceed so far, he was compelled completely to reform his system. The result of this step which found its final expression in the Pure Reason, after the Dissertation of 1770 had fixed the general point of view, is expressed in the formula: There is a knowledge of objects from pure reason but only of objects as they are given us, viz., in perceptions. He sets himself thus in opposition to both phases of his previous development, as much against Rationalism as against Empiricism; or, according to his own expression, against Dogmatism and Scepticism. . . . The positive portion of the Critique, and, therefore, the new system of knowledge, directs itself against Hume."[2]

With the foregoing positions of Paulsen this monograph agrees in general. Points of departure will be more specifically touched upon as they come up in the consideration of Leibnitz, Wolff, and Kant. For the sake of clearness it might be well, however, to summarize them briefly at this time.

The first large difference lies in the emphasis here placed upon Wolff and his effect upon the history of rationalism. From such a point of view, the "time between Leibnitz and Kant" is anything but "empty space." Instead it becomes big with explanatory motives for the future pre-critical mutations of Kant. For, his assimilation of views so new and radical would be especially difficult to explain if they came from a thinker like Hume whose utterances, in the very nature of the case, could hardly conceivably be understood or appreciated by Kant until after a comparatively long development away from the rigorously deductive ideals of a Spinoza or a Leibnitz. Upon the supposition of Wolffian empiricism, motives arise easily from tradition, lineage, and discipleship, instead of being laboriously engrafted from a foreign school.

Such a fundamental difference will bring in its train many other diver-

[1]Ibid., pp. 24-26.
[2]Ibid., pp. 1, 2.

gencies of opinion* One is the placing of Wolff where Paulsen places Kant as late as 1770, when he says: "Kant is an empiricist, but he does not really perceive it himself."[1] Another is the elucidation of Kant's motives, as has just been suggested, when certain motives are overlooked or differently assigned by Paulsen, as for example, in his above quoted description of Kant's three positions: his original Wolffian rationalism; his movement toward empiricism; his final fixation in criticism. For the impulse to the last Paulsen invokes a revulsion from skeptical tendencies upon Kant's first real comprehension of Hume. For the impulse to the second or empirical tendency, our commentator has several suggestions, the chief one being the natural choice of the second alternative when only two appear on the surface and one is rejected. He asks, "After he had ceased to hold with rationalism that it was reason, what might Kant accept as the source of our insight into causal relations? It appears . . . that only one answer could be expected: Experience. Reason and experience had been so long and so decidedly opposed . . . concerning the limits of their influence, that every loss on one side could be assumed as gain on the other. When the principle of sufficient reason was rejected from the realm of pure reason by Kant, it appeared by that very act to be transplanted into the realm of experience. . . . If this was not to be longer known by reason, how then otherwise could it be known except through experience?"

In place of such an imaginary motive, a real and historical one may readily be found in the fact that Wolff, the avowed master of Kant, went exactly to the same source for his principles under similar circumstances. To make Kant's three positions merge quite naturally into each other, it is necessary merely to understand that he began as a disciple of Wolff's superficial system, viz: rationalism; but was soon led along the road toward skepticism by Wolff's real system, viz., logic beginning with empirically derived premises; and was finally driven back toward real rationalism, or an examination of the possibility of necessary premises, by the realization that Hume's skepticism utterly demolished his fundamental and pet dogma: Things may be known by reason alone. From this point of view, Wolff, the avowed rationalist, leads him to empiricism; Hume, the arch-empiricist, drives him back to rationalism.

The justice of such a claim will be determined by an analysis of writings of the philosophers themselves permitting, as far as possible, each one to tell his own story.

---

[1]Ibid., p. 100.

*Note:—The comparatively little effect of Dr. Paulsen's able and suggestive critique upon current theories of Kantian development would itself justify a protagonistic effort in addition to any other reasons for this monograph.

SECTION I.

THE RATIONALISM OF LEIBNITZ.

INTRODUCTION.

Any connected account of Leibnitz' epistemology must be gathered up from many independent essays and smaller works. They were usually hurriedly prepared; occasionally written on journeys; sometimes suggested by specific inquiries from individuals, and often dealt with phases of larger problems. Consequently they do not always fit with precision into other parts of his scheme. His letters were largely controversial and devoted to answering objections with arguments not infrequently born of the heat of the occasion and not sound under cool and searching analysis.

On account of the broken character of his writings, his condensed and hurried style, and the actual shifting of his thought, it is extremely difficult to bring together his multitude of opinions into one coherent whole. Yet through all the obscurity and incompleteness of his writing is felt both the sincerity of his attempt to deal with the problems involved, and also the strength of his desire to bring the methods of rationalism to an efficiency capable of meeting the demands of a universal epistemological method. There is no slurring over difficult points. There is no doubt about the ideal in his mind. Whether the reader agrees with the conclusions or not, he cannot help feeling the earnestness of the thinker and admiring the sturdy frankness which never shirks the issue and the acuteness which never misses a real point.

Leibnitz comes to the analysis of experience with a mind biased by an early adherence to a school. This bias already commits him to the logical method of discovering truth. He is a Rationalist, born and bred. The mathematical method appealed to him as no other did. Geometry with its few initial axioms and its wealth of analytically derived theorems, was especially fascinating to this early disciple of an original geometrician and himself an extender of geometric methods. "Why should not the same processes be extended to the whole realm of knowledge?" was a most natural question.

Therefore, when his mind is turned to the reform of metaphysics, he is following a familiar line of thought when he says, "A certain particular plan is necessary in exposition which, like the thread in the Labyrinth, serves us, no less than the method of Euclid, for resolving our problem after the manner of calculus, preserving nevertheless, always the clearness which in common conversation should not be sacrificed."

Another heritage of the past was his "duality" of experience. Receiving it without question, he thought he found a chasm between soul and body, between idea and fact. To join the latter two into a logical whole was his problem of knowledge. To this he gave himself with the earnestness of an original thinker and the skill of a master mind, and if his efforts served to show more the inherent impossibilities of Rationalism than had hitherto appeared, they nevertheless brought that system to as high a pitch of perfection as it attained at any other time.

The recognition of a dualism is shown by his fundamental division of

truths or propositions into those of fact and those of reason. A few quotations covering a wide period of his philosophic activities will show the importance of this classification to him and his steady adherence to it.

In 1692 he says, "In general, therefore, it may be said: Truths are either of fact or of reason."[1] In the Nouveau Essais, his most important work on epistemology, he maintains his view that "Primitive truths, which are known by intuition, are of two kinds, like the derivative."[2]

He considers these as important to him as the particular propositions concerning existence and general propositions concerning abstract ideas were to Locke, for he says of them, "Your (Locke's) division appears to amount to mine of propositions of fact and propositions of reason."[3] Again, nearly at the end of his life, he writes, "There are two kinds of truths, those of reasoning and those of fact."[4]

To combine these two kinds of truths into one rationalistic system he must overcome radical difficulties in each. Among the truths of reason he must find an idea which involves existence; among facts he must find one capable of true definition.

---

[1]An. D. Phil., G. vol. 4, p. 357, D. p. 48.
[2]N. E., Book IV, C. 2 § 1.
[3]N. E., B. IV, Ch. II, § 13.
[4]M., § 33.

CHAPTER I.

REDUCTION OF TRUTHS OF REASON TO THE IDEA OF GOD.

Following his mathematical ideal, and beginning with truths of reason, Leibnitz makes his first advance by reducing all of them to one, viz: the Principle of Contradiction or Identity.

"The first of the truths of reason, as Aristotle rightly observed, is the principle of contradiction, or, what amounts to the same thing, of identity."[1]

"Nothing ought to be taken as primitive principles except experiences and the axiom of identity, or, what is the same thing, contradiction, which is primitive, since otherwise there would be no difference between truth and falsehood."[2] Thus it becomes the definition or criterion not only of all truth, by "virtue of which we judge that to be false which involves it and that true which is opposed or contradictory to the false,"[3] but also the definition of truths of reason which "are necessary and their opposites impossible."[4]

In its most general form this principle is an identical proposition, taking the form of A is A, and seeming to repeat the same thing without giving any information. It "cannot be proved, and indeed needs no proof . . . the opposition of which contains express contradictions."[5]

This reduction did two things: closed the circuit by finding the test of truth within a proposition in its own self-contradiction, and secondly reduced the terms, or subject and predicate, of these truths practically to one. These terms are the limits of analysis and the elements of knowledge. They form definitions, but are themselves undefined, as a few quotations will show. "We have, however, a distinct knowledge of an indefinable thing when it is primitive, or when it is only a mark of itself, that is, when it is irreducible and is only understood through itself."[6]

In a broader sense knowledge "is found in ideas or terms before we come to propositions or truths."[7]

"When we have pushed the analysis to the end . . . when we finally come to the consideration of some natures which are understood only through themselves . . . and which need nothing outside of themselves in order to be conceived, we have reached a perfect knowledge of the thing."[8]

This movement has progressed so far with perfect smoothness toward that much-to-be-desired "term" or "idea" which shall include existence within itself as its essence. Just here, however, a very practical consideration occurs to Leibnitz and he asks, "Now, is it possible that men should ever construct a perfect analysis of notions, or that they should reduce their thoughts down to

---

NOTE.—Leibnitz nowhere makes clear the intermediate steps between any general truth and the principle of contradiction. His method in general is given in "Wisdom," Art. 1, 2, and 3, and in the Monadology.

[1]An. D. Phil., On Art. 7.
[2]L. Ess., G. V. 5, p. 14; D. p. 94.
[3]M., § 31.
[4]M., § 33.
[5]M., § 35.
[6]Th. on Tr., G. V. 4, p. 423; D., p. 28.
[7]N. E., B. IV, C. 1, § 1.
[8]Wisdom, § 3.

first possibilities, to irreducible notions, or what is the same thing, down to the absolute attributes of God; that is, to the first causes and to the final reason of things? I should not dare actually to decide this question."[1]

However, the conclusion of the ideal process would result in one term or idea. The notion of substance he finds "so fruitful that from it first truths, even those which concern God and souls and the nature of bodies follow."[2]

Before this fertile notion can be fully accepted, however, it must needs be tested. The idea must be shown to be possible, for "we cannot safely use definitions before knowing whether they are real and do not involve any contradiction. The reason of this is that if the ideas involve contradiction, opposite things may be concluded at the same time, which is absurd."[3] An example of such an idea is that of a quickest motion, the conception of which turns out to be impossible.

Further, after this test has been passed, to become the longed-for idea involving existence, the idea of substance must fulfill still another condition. Even if an idea is true, it is not always certain that existence follows, for "true or real ideas are those of the *possibility* of whose fulfillment we are assured; the others are doubtful; or (in case of proof of impossibility) chimerical."[4] To possibility must be added necessity of existence.

"And thus it is that the final reason of things must be found in a necessary substance . . . and this it is which we call God."[5]

God possesses "a great advantage over all other things" in this respect. "For it is sufficient to prove that he is possible, to prove that he exists, a thing not encountered anywhere else that I know of. Furthermore, I infer from this that there is a presumption that God exists, for there is always a presumption on the side of possibility. . . . This may suffice for practical life, but it is not sufficient for a demonstration."[6]

This argument does not rest upon the perfections of God for "omitting all mention of perfection, it may be said that *if necessary being is possible it exists.*" This can be done "by simply saying that God is a being of itself or primitive, *ens a se*, that is, which exists by its essence." From this "it is easy to conclude . . . that such a thing, if it is possible, exists; or rather, this conclusion is a corollary which is desired immediately from the definition, and hardly differs from it. . . . And if *being of itself* were defined in terms still nearer, by saying that it is *being which must exist if it is possible*, it is manifest that all that could be said against the existence of such a thing would be to deny its possibility."

"On this subject we might again make a modal proposition which would be one of the best fruits of all logic, viz: *that if necessary being is possible, it exists.* For *necessary being* and *being by its essence* are one and the same thing. Thus the reasoning taken with this bias appears to have solidity; and those who will have it that from mere notions, ideas, definitions or possible essences, actual existence can never be inferred, in truth fall into what I have just said, namely, they deny the possibility of being of itself. . . . If *being of itself*

---

[1]Th. on Tr., G. V. 4, p. 425; D., p. 31. Example of numbers approaches it.
[2]R. Met., G. V. 4, p 469; D., p. 69.
[3]Th. on Tr., G. V. 4, p. 423; D. p. 29.
[4]L. Ess., G. V., p. 15; D. p. 95.
[5]M., § 38.
[6]Car. D. Ex. G., G. V. 4, p. 394; D. 134.

is impossible, *all beings by others* are so also; since they exist ultimately only through being of itself; thus nothing could exist. This reasoning leads us to another important modal proposition, equal to the preceding, and which joined with it, completes the demonstration. It might be expressed thus: If *necessary being is not, there is no being possible.* It seems that this demonstration has not been carried so far up to this time."[1]

NOTE.—The solution of the problem might have been also illustrated by the use of the *ens perfectissimum*, but this argument has been chosen since it seems to present a more simple rationalistic scheme, avoiding as it does the necessity of assuming that a perfect being possesses all attributes and that existence, as a part, is contained in this all. For Leibnitz's remarks on this demonstration, see Nouveaux Essais, B. IV C X, § § 2-6.

[1]Ibid, G. V. 4, p. 405-406; D. p. 137-138.

CHAPTER II.

Contingent Truths or Facts.

However easily the bloodless truths of reason may be fitted into a logical scheme, facts stand for eternal independence. Each one rests so sturdily upon its own bottom; each insists so persitently upon its own individuality. They have always been stubborn things for the rationalist. They refuse to be represented by any general idea or described by any definition. Doubly then did they resent efforts to make them but secondary dependents upon general ideas.

Leibnitz recognizes this peculiar difficulty and bends all his genius to the task of bringing facts under the rationalistic sway. While he does not grant them a primacy, nor co-ordinate them with general notions, he does recognize them in a way and accords them the importance of a grand division in his system.

"In general, therefore, it may be said: Truths are either of fact or of reason. . . ."[1]

"*Primitive* truths, which are known by *intution*, are of two kinds, like the *derivative*. They are either truths of *reason* or truths of *fact*."[2]

Having thus recognized them, his task is to connect them with this primitive substance in such a way that they may be derived from it by logical analysis.

His first step in this direction is the reduction of these facts, which are "as many as the immediate perceptions, or those of consciousness," to two, "*I think*, and *various things are thought by me*."[3]

These truths he calls contingent. Contingent truths or facts may be defined as those "the essense of which does not involve existence."[4] They belong to that class of things whose reason cannot be found in themselves for the sufficient reason of existence can be found neither in any particular thing nor in the whole aggregate of series."[5]

Hence they may be defined generally by the second great principle of Leibnitz's system, viz., that of Sufficient Reason.* For "our reasonings are founded on two great principles, that of contradiction. . . . and that of sufficient reason, by virtue of which we consider that no fact can be real or existent, no statement true, unless there is a sufficient reason why it is so and not otherwise."[6]

Having thus classified these truths as contingents, Leibnitz is ready to begin his real task of relating them to his primal notion. He does this in two stages.

First, he makes their very lack of necessity lead to necessity. By their nature as defined in the fundamental principle of sufficient reason, an analysis of them would lead to a *regressus ad infinitum* and "to whatever anterior state you may go back you will never find there a perfect reason why forsooth there in any world at all."[7]

---

[1]An. D. Phil., Art. 7. Also M., § 33.
[2]N. E., B. IV, C. II, § 1.
[3]An. D. Phil., Art. 7.
[4]Sp. Eth., Prop. 29.
[5]O. of Th. G. V. 7, pp. 100-106; D. p. 101.
[6]M. §§ 31, 32, 33.
[7]O. of Th. G. V. 7, pp. 100-106. D. p. 100

*Leibnitz does not seem to undertake a proof of this principle. When pressed to do so by Clarke, he falls back upon experience pure and simple, "from whence one may reasonably judge that it will succeed in unknown cases or in such cases as can only by its means become known; according to the method of experimental philosophy, which proceeds *a posteriori;* though the principle were not perhaps otherwise justified by bare reason, or *a priori*." Leibnitz's Fifth Paper, answer to Clarke's Fourth Reply, § 129.

"But there must be a *sufficient reason for contingent truths*, or those of *fact*, that is, for the series of things diffused through the universe of created objects."[1]

"And thus it is that the final reason of things must be found in a necessary substance . . . and this it is what we call God."[2]

So contingent things finally lead to the existence of a necessary being "since contingent beings exist which can only have their final or sufficient reason in a necessary being who has the reason of his existence in himself."[3] "Thus God alone in the primitive unity or the original simple substance."[4] We have found a fact which can be defined as a being whose essence is existence.

This marks the end of the first stage. "Why there is something rather than nothing"—even though nothing were easier than something—has been answered. The reason for the whole world has been found.

But "Further, suppose, that things must exist, we must be able to give a reason why they must exist so and not otherwise."[5] By the previous deduction it has been shown how being in general is necessary; now it must be shown how the existence of each individual thing is involved in the idea of Being or God. Nothing less will satisfy a rigorous rationalistic system. Or, to put it in the words of our thinker, our task is "to explain a little more clearly how, from eternal or essential or mataphysical truths, temporary, contingent, or physical truths arise."[6]

In his Uultimate Origin of Things" he takes up this development in detail. From the fact "that something exists rather than nothing, there is in possible things . . . a certain need of existence, and so to speak, some claim to existence, in a word, that essence tends itself toward existence. Whence it further follows that all possible things, whether expressing essence or possible reality, tend by equal right toward existence, according to their quantity of essence of reality, or according to the degree of perfection which they contain, for perfection is nothing else than degree of essence."

"Hence it is most clearly understood that amongst the infinite combinations of possibles and possible series, that one exists by which the most of essence or of possibility is brought into existence. . . . And here the time, place, or, as many say, the receptivity or capacity of the world may be considered. . . . So it being once posited that being is better than not being, or that there is a reason why something should be rather than nothing . . . it follows that even in the absence of every other determination the quantity of existence is as great as possible, regard being had to the capacity of the time and of the place (or possible order of existence) . . ."

---

[1]M. § 36.
[2]I. M. § 38.
[3]M. § 45.
[4]I. M. § 47.
[5]N. and G. § 7.
[6]O. of Th. G. V. 7, pp. 100-106; D. p. 101.

Perhaps an illustration will make this clearer. Suppose we had the problem of placing upon a board the largest number of disks so that their centers would be equi-distant from one another. We would choose to arrange them in equilateral triangles. Having once chosen to place as many as possible on the board, it became immediately necessary to arrange them so.

So with the world of things. The Being whose essence is existence wishes to express himself in the fullest existence. The most perfect world will be the fullest one. "So the perfection or the degree of essence (through which the greatest possible number is at the same time possible) is the principle of existence."[1]

If then we could define the most perfect world we could state exactly what things have existed, do exist, and will exist. "The present is big with the future, the future could be read in the past, the distant expressed in the near One could become acquainted with the beauty of the universe in each soul, if one could unfold all its folds, which only develop physically in time."[1]

Whatever may be the defects of Leibnitz's attempts, his ideal is clear. He wishes to make rationalism a universal method of knowledge. There streamed out before his consciousness a perfect system of reasoning beginning with one idea, involving existence and containing definitions of all other things in the world. All the varied general notions and the countless stubborn facts found their unity in this primal idea, or substance called God, the rationalist's very present help in time of trouble.

His contribution lay in the clearness with which he summed up his problem in the two kinds of propositions or truths, those of fact and those of reason, and the remarkable acumen with which he urged the logical system against the empirical.

This very clearness, however, but brings out the weakness of his method. The connection between his primal idea and general notions was not made exact, and he never pretended it was made complete. His "perfection" completely failed to explain individual things. His two great principles were never merged into one.*

Still his efforts were admirable, and one can hardly close the study of his works without longing for a disciple who shall rise up and finish the task by weaving his suggestive but broken threads into a rational and triumphant whole.

---

[1]G. V. 7, pp 100-106. D. pp 101-103.

In Nature and Grace (§§ 9, 10) the perfection of God is the sum total of positive attributes. Perfection, in the sense of quantity of existence, is here used as more closely fitting into the idea of God as *ens realissimum* used in the first part of the paper. Either would illustrate Leibnitz's methods of meeting the demand of Rationalism.

*Leibnitz's motive for strenuously insisting upon "sufficient reason" becomes clear when it is understood that it includes both the efficient cause and the final reason or end of things. Such a reason is amenable to analysis, while efficient causes are discoverable only by observation. This end, perfection, is in God's mind. Such perfection does not in any way indicate the order of things in the world. A may be moved to B's place, and B to A's, and just as much reality is here as before. The attempt to define an individual by such perfection leaves out the very necessary attribute of position.

As for the perfection of the world, it appears to be an *a posteriori* assumption. From the things in the world a perfect being is argued, an *ens perfectissimum* or *ens realissimum*, and from such a being a perfect world is argued. Perhaps neither one exists. For motive see also Paulsen, pp 20, 21.

SECTION II.

THE RATIONALISM OF WOLFF.

Introduction.

In contrast with Leibnitz, none of the difficulties encountered in Wolff are due to his style or method of writing. He takes time to reflect. He follows persistently every thought to its branchings, and every branch to its ending. He is a system maker by temperament. His plan is magnificent in its scope, large and sweeping in a suggestiveness which, though lacking consistency of detail, yet makes a strong appeal to the imagination.

In his later works his purpose appears to be nothing less than making all science deductive. Founding his method in his Logic, laying down his first principles in his Ontology, he proceeds to his Cosmology, Psychology, Sociology, and other works to marshal all his sciences into one grand rational whole, admitting empirical knowledge only secondarily and temporarily.

Superficially considered such a plan seems to realize the conception of Leibnitz and to be a perfecting of his vigorous though broken utterances. The student finds himself again in the familiar domain of the law of contradiction and sufficient reason, of necessity and contingency, and the relation of these through God and the perfection of the world.

While apparently an immense and permanent movement toward the fulfilment of Leibnitzian ideals is accomplished, it is but the forward motion of breakers on an ebbing tide. The undertow is really in the opposite direction and the resultant motion backward. To carry the figure still further, while Wolff's system presents the wave-like regularity of the ocean's surface, its thought-depths are stirred with currents and counter-currents, eddies and undertows, seemingly wholly unsounded and uncharted by the thinker himself.

With reference to the rationalistic ideal, three general movements appear. First there is the early attempt to reduce Leibnitz's two principles of contradiction and sufficient reason to one. Failing in this, Wolff distinctly retrogrades by falling back upon the scholastic method of including existence as an attribute in the definition of individual things. Finally, he moves forward toward empiricism by empirically deriving such definitions. All of these movements tend directly to the decay of the analytic method; the first by failure to deal with its fundamental problem; the second, by taking an untenable position on this problem; the third, by limiting its operations to syllogisms whose premises are synthetic propositions *a posteriori*.

CHAPTER I.

Attempts To Reduce the Two Principles to One.

One of the most patent deficiencies of Leibnitzian rationalism was the retention of two fundamental principles—contradiction and sufficient reason. Not only Wolff, but other lesser followers of Leibnitz, appear to have been early struck with this defect, and to have made attempts to reduce the two to one. Until that was accomplished, knowledge of things must come by experience.

In his earlier Metaphysics (as he sometimes calls it) Wolff notes that Leibnitz considered the principle of sufficient reason "as a principle grounded in experience against which no one could give a contradictory example." The former thinks, "It can be sufficiently proven" by the fact that "by it the difference between truth and dreams, between the true world and the world of phantasms arises." As truth is the order of changes in this world, without such a principle there would be no truth.[1] But such an argument is defective in that it militates against the order of this world only. The dream-world has an order, also.

A more decided effort in the same direction is made in the same work in the following manner. If two things are identical, one can be put in the place of the other. Suppose, then, A and B are thus identical. If the law of sufficient reason does not hold, a change may take place in A and not in B, and A may become causelessly A + C. It cannot then be put in the place of B, which is contrary to the supposition that they are identical, and, therefore, impossible, for a thing cannot both be and not be at the same time. Wolff always, as here, states the law of contradiction with the time element included and so makes it include things or facts. At any instant a thing is itself, be it fact or idea. The real problem is to give facts or things a timeless identity.[2]

Evidently Wolff felt the weakness of this second attempt to connect the law of sufficient reason with that of contradiction, for in his Ontologia, where he takes up a complete discussion of the two principles, it is not mentioned, though he does cling to the former one concerning the dream-world. In fact, instead of continuing his efforts toward unifying the two principles, he finally leaves them vaguely co-ordinated under a show of systematic correlation. "It appears, therefore," he says, "that the principle of contradiction is the source of all certitude. If it is posited, certitude in human knowledge is likewise posited; if it is destroyed, certitude is also destroyed." Then, after noting that many philosophers, and especially Leibnitz, have made prominent use of the principle of sufficient reason, he seemingly elevates it to co-ordinate rank with his previous principle, by adding "therefore we have placed it in the number of ontological principles, where not less than the principle of contradiction, we use it for firmly and undeniably establishing the foundations of knowledge." Further, as if to emphasize its importance, he makes no attempt to deduce it from any prime principle, but derives it from experience. It is not contrary to experience, and is capable of being extracted from singular and universal examples; the nature of our mind makes it difficult to admit any single case without a sufficient reason, and it is admitted to a place among axioms without

---

[1]G. §§ 30, 142, 144, 572.
[2]Ibid. §§ 31, 17, 10.

proof. The outcome seems to be that the two principles, though more vaguely, are really left as far asunder as with Leibnitz.[1]

From the viewpoint of perfected rationalism, failure to join its two fundamental principles meant final failure of the system. Wolff's inability to do this, however, merely marked a halt in the expected evolution. One could still hold to the ideal and look for a genius of reconciation. Such a pause need not necessitate any surrender of method.

[1]O. §§ 77, 55, 71-75.

CHAPTER II.

Existence is Included in the Definition of a Thing.

Having thus given up the problem of reducing the two principles to one, or of accounting for contingents by connecting them with necessary ideas, Wolff attacks the problem of individual existence from another angle. Apparently all unconscious of any historical retrogression, and certainly without any indication of external influences, but seemingly moved wholly by *prima facie* difficulties, he falls back upon the scholastic method of bridging the chasm which Leibnitz saw so clearly to be the fundamental difficulty of historic rationalism. This method was the easy short-circuiting of the whole difficulty by defining individuals, instead of seeking for an idea of a necessary substance and then laboriously analyzing out the individual existences of the world as its attributes.

He begins his task of defining individuals in such a way as to include all their attributes, even existence, as follows: "If simple attributes which remain undetermined in the notion of a species are themselves determined, so that this determination does not conflict with the general attribues which reside in the notion of the species, the notion of an individual is obtained. This is true, for a species contains those attributes common to individuals . . . Therefore, if these attributes are determined so that nothing is left undertermined, the notion of an individual is obtained."

"It appears then that an individual is a thing determined in every way, or a thing in which all attributes are determined which inhere in it."[1] For example, "if in arithmetic, individual numbers related to certain species are so described that the manner in which they are determined from given things becomes apparent, the notion of an individual is illustrated and the manner in which universal knowledge inheres in individuals is plain. For example, the analytic formula for the number of angles in a polygon is n^2 plus n divided by 2, where n denotes the number of sides." If in a particular case n equals 5, the figure could be accurately constructed, and "we have thus a definition of an individual of which thus far we have been content with a clear notion, and also immediately the *principium individuationis* which is the determination in every way of those attributes which inhere in things."[2]

The Ontology further adds: "Whatever exists or actually is, is determined in every way." . . . "A singular thing or individual is that which is determined in every way." . . . "Through the *principium individuationis* the intrinsic sufficient reason of an individual is known."[3]

By this means it becomes unnecessary for the analyst to go outside of the definition to find the attribute existence in the notion of a thing.

---

[1]L. §§ 73-74 and note.
[2]L., §§ 72, 74 and note, cf. §§ 43, 75.
[3]O., §§ 226-229; cf. §§ 261-265.

CHAPTER III.

§ 1. Deriviation of Wolff's Data of Knowledge.

In spite of the above described unsuccessful attempts to explain existence by joining the two principles of Leibnitz and by the expedient of individual definition, Wolff is apparently unsuspicious of any defect in his system. He bravely asserts that "the rules of logic are sufficient for discerning truth from falsehood," for "If both the premises of any syllogism are true the conclusion is true." The conclusions appear in the form of propositions "concluded from syllogisms agreeing among themselves in which we do not use any premises except definition, indubtiable experience, axioms and propositions already demonstrated." All of these are said to be true without doubt.[1]

From the citations it appears clearly that Wolff's whole system is finally grounded upon "axioms, definitions and indubitable experiences." Concerning these two questions immediately arise: Do any or all of them include existence of things? If so, how did existence come to be included? Upon the answer to these questions Wolff's entire rationalism depends. For unless each one of these data of his logic can be logically derived from some necessary primary idea, his scheme has failed. To determine that point one datum after the other will be taken up in the succeeding chapters and traced through its various stages to its source.

§ 2. Meaning and Genesis of Indubitable Experiences.

Beginning with indubitable experiences, we will try to make their meaning clear by definition and example. From his earliest works to his later logic, Wolff's treatment remains practically the same. In Gendanken v. Gott he says, "The knowledge (Erkenntniss) which we gain when we pay attention to our sensations and soul-changes, we are accustomed to call experience." As an illustration of his meaning he mentions the overcast sky and the lighting of a room by a lamp.[2] When such experiences are formulated in words, they form intuitive judgments. For example, in the above-mentioned work he attempts to prove by the use of the syllogism: "He who is conscious of his own existence and that of other things, exists." "We are conscious of our own existence and that of other things." "Therefore, we exist." "In this syllogism . . . the minor premise is an indubitable experience."[3]

In his earlier and later logics also, under the heading of demonstrations, he gives some well-known Euclidian problems after the manner of ordinary logic, using axioms, definitions, and intuitive judgments which identify the last with indubitable experiences.[4]

The definition and examples of intuitive judgments further substantiate this identification. "We call that judgment intuitive in which we attribute to a certain thing what we immediately perceive is contained in the notion of it." "For example, 'The sun shines' is an intuitive judgment."[5]

---

[1]L., §§ 545, 537, 544, 267, 262, 505, 538, 534.

[2]G., § 325; cf. K. ch. 5, § 1.

[3]G., § 36, 7; cf. K. ch. 5, § 1.

The same syllogism is given in the late Psychlogia Empirica, § 16. He calls the major premise an indemonstrable proposition. (cf. Log. § 263). The minor is an intuitive judgment, arising from indubitable experience.

[4]K., ch. 4, § 25; L., § 551-553.

[5]L., § 51.

The meaning of indubitable experiences or intuitive judgments now being clear, the next task is to describe their origin and method of formation.

In Part II, Section 2 of the Logic, headed "Formation of Intuitive Judgments and Notions *a posteriori*," this is carefully done. "To form intuitive judgments one ought to attend to those attributes which inhere in things, or to those things to which the attributes are related in any manner, and further, the thing which one perceives comprehends these attributes ought to be assumed for a subject; and what he comprehends in the thing or the relations of it to the other things, which he observes, for a predicate." The method is illustrated as follows: "For this reason we know that the rays of the sun warm things, the rain wets things, . . . and fire burns. And if these judgments are at first nothing except singulars, we will show how they are drawn out to universals."[1] If from observation it is established that the predicate of an intuitive judgment is an attribute or an essential or something residing in the mode of an attribute it appears to be a universal intuitive categorical judgment." "For example, experience demonstrates that the power of becoming hot and of cooling is among the attributes of stones. The propositions therefore, *a stone can become hot; a stone can become cold,* are universal . . ." "It is to experience that we owe the universal propositions, *Every stone can become hot. Every stone can become cold.*"[2]

"Similarly, by observation alone it is possible to establish (§675) that equality of sides belongs among essentials of squares. On which account the proposition, *A square has equal sides,* is universal. And, therefore, from experience the universal proposition, *Every square has equal sides,* is derived." In the same manner, hardness of stones is established.[3]

From these references it will appear now completely empirical are these data of Wolff's logic. They turn out to be the simplest observations or the most patent inductions. With indubitable experiences admitted as final sources of knowledge, any rationalistic system is vitiated. Whatever structure of magnificent reasoning may be built upon this foundation, it will always be as unstable as the crude opinions of common sense, for they both rest ultimately upon the same basis. Yet this admission, important as it is, becomes minor in the light of further study. The one admission of experience here is merely

"the little rift within the lute,
Which by and by will make the music mute,
And ever widening slowly silence all."

Not only indubitable experiences come from observation, but such impregnable strongholds of rationalism as ideas, definitions, propositions, and even principles themselves, as will be seen, are drawn most naively from the very fountain heads of empiricism. They are magnificent examples of induction.

§3. Formation of Definitions, Nominal and Real.

While in general, historic rationalism did not demand a practical difference between ideas and definitions, Wolff does make a verbal distinction. "We distinguish a complete and determinate notion from a definition as a sign is distinguished from the thing signified, a notion from its term, an enunciation from its judgment."[4] The method of forming nominal definitions is first described. In general, predicates which are not determined by each other, and

---

[1] L., § 669 and note.
[2] L., § 705, Note 708.
[3] L., § 705; K., ch. 3; 5-11; ch. 5, § 1; G., § 329-330; 272.
[4] L., § 152 and note.

which when selected and brought together, serve to distinguish the subject from other things, are combined in one proposition. The process is made clear by an example. "If anyone studies an equilateral triangle, he understands that equality of sides and of angles is predicated of it. But when, through demonstrations, it appears that equality of angles is determined by equality of sides, so that inequality of sides and of angles is contradictory, then equality of angles can be excluded from the definitions."[1]

The method of forming real definitions from nominal was described in substance in his early work on Human Judgment, sometimes called Logic. In his later Logic he gives the same genesis: "If from a given nominal definition a real definition is sought (1) as many intuitive judgments should be formed as possible. . . . And if then it does not appear what ought to be done to derive the thing defined (2) conclusions should be drawn . . . until it can be found what ought to be done that the thing may be derived. . . . In memory we can reflect upon things before seen, for among these may occur those things by which the things required for the genesis of the thing defined may be found. And if such things occur, the genesis of the thing can be conceived. . . ."

For example, "If there is stated a nominal definition of vapor as fine particles of water which ascend into the air as if spontaneously, then, by investigating the manner by which vapors are formed, we form the first intuitive judgment, Vapors ascend in the air as if spontaneously. Then, if it occurs to us that every fluid body ascending apparently spontaneously, is lighter than the medium in which it ascends, thence we infer that vapor is lighter than air. From the nominal definition we obtain another intuitive judgment: Vapors are particles of water. It is recorded that water is heavier than air. Hence we gather that vapors consist of materials heavier than air." Then by the same process of memory, comparison, and definition, we come to the conclusion that "water is resolved into bubbles by rarefaction of air through heat," and thus we arrive at the real definition. A shorter example of the same method is drawing a parabola. In the early Logic, he uses the same example, and remarks, "Much help comes from blind luck."[2]

This fully covers the case of definitions, and even more, for "since from nominal definitions genetic definitions themselves are derived and from a genetic definition, which shows distinctly the genesis of a thing, all attributes which belong or can belong to a thing are deduced; therefore, without doubt from a nominal definition all attributes can be deduced which belong to a thing."[3]

Definitions, however, may be considered as composites made up of terms or ideas. The ideas, to make the exposition of Wolff's system complete, must be traced to their origin.

§ 4. Origin of Ideas.

The later Logic is the first Latin work of Wolff's later career. In it ideas are given a fully detailed account. We begin by perceiving external things by means of the senses; or we bring them to mind by imagination and can pay attention to this simple representation in the mind called "a notion by some, by others an idea."[4] This process gives particular notions of things. "Univer-

[1] L., § 730, note.
[2] L., § 734, note; K., ch. I, § 35-56; 52.
[3] O., § 265.
[4] L., §§ 30, 34.

sal notions are notions of likenesses among many things, or better, notions by which attributes common to many things are represented." "Thus it is that "universal knowledge comes from a contemplation of single things."[1]

In a section of the same work headed "Concerning the Formation of Intuitive Judgments and Notions *a posteriori*" one paragraph is marked: "In what manner a universal notion is acquired by means of the senses," and the following example is given: "Some ordinary figure, say a regular hexagon, is placed before our eyes. If those things which are represented in this figure are observed, sides and angles will be distinguished. If the sides are numbered, the number is apprehended as six. If they are compared with each other, they are perceived as equal. Therefore, the first intuitive judgment is formed: A regular hexagon has six equal sides. In the same way the second intuitive judgment is formed: A regular hexagon has six equal angles. Suppose the surface is red. Therefore, the third intuitive judgment will be: This regular hexagon has its surface colored red. But if these judgments are compared with one another, it easily appears that while the number six and the equality of the sides and angles are constant, the color of the surface may vary, and consequently should not be included in the notion, but excluded as something foreign." "Retaining the number six and the equality of the sides and angles, you produce the notion that a rgular hexagon is a figure bounded by six equal right lines and having all angles equal."[2]

Several succeeding paragraphs show analogous developments, such as the manner of forming distinct notions with microscopes and telescopes; in the former case "by the use of microscopes, we obtain distinct notions of things which, on account of their smallness, by the naked eye alone we would have confused notions only, or could not see at all."[3]

To make it clear that universal knowledge comes from these processes he refers back to these paragraphs, saying, "Though experience deals only with singulars from these . . . experience serves as a means of arriving at universal notions distinct and adequate and in like manner, to definitions themselves, and also to universal hypothetical and categorical propositions."[4]

Then, finally summing up the matter, "As notions of things are formed by the use of intuitive judgments concerning things perceived by the sense and general notions from particular notions," as in §§ 710-715, "by the following different modes universal notions are formed:

(a) By reflection upon those things which are perceived; (b) By abstracting from common attributes found in many notions; (c) By changing variable determinations into others. The mode of forming notions is threefold: reflection, abstraction and arbitrary determination, which is again a twofold mode; (a) By determining those things not determined in a certain notion; (b) By determining otherwise what is already determined.[4]

The deriviation of universal notions in the Rational Psychology is made even more emphatically empirical. "Notions of genera and species we do not have, except as far as we perceive them in individuals and singulars and of which we are conscious." "Genera and species do not exist except in individuals." "We

---

[1]L., §§ 54, 57.
[2]L., § 678, note; cf. also K. ch. 1, §§ 4-6; 19-20; 25, 26, 30; G., 273, 275.
[3]L., §§ 684, 685.
[4]L., § 708.
[4]L., § 716.

do not have any universal notions except as we abstract from individual things perceived by the senses, or as we bring together in one notion the attributes perceived in many things . . . "It appears, therefore, that nothing is contained in universal notions except what has already been perceived by the senses and of which we have been conscious, or which we have apperceived. . . . Universal notions are apparent to the intellect. If in this sense the common expression is understood, 'Nothing is in the intellect which has not been in the senses,' in this sense it must be admitted true. Nevertheless, whoever infers from these things which we suggest, that all ideas and dependent universal notions are brought from the senses into the mind as into an empty receptacle, infers things which by no means follows."[1]

Again the pursuit of Wolff's data leads to empiricism. His explanation of ideas and definitions is not accidental, nor is it limited to an early and unreflecting period of his career. In his earliest and latest works, practically the same source and method are alleged. In fact, the late Psychologia emphasizes with more force than any other work the impossibility of obtaining general notions except through individuals, and asserts positively that they arise by way of the senses alone.

Wolff's saving clause concerning too general inferences about the mind as an "empty receptacle"—thrown out to save the face of rationalism—will not retrieve the position surrendered. Rationalism, based upon experience, definitions and ideas like those already examined, has claim to neither certainty nor universality. Possibly axioms will possess these requisites to the proper degree.

§ 5. CERTAINTY OF AXIOMS.

The last class of Wolff's data remains to be examined. Upon them rests the integrity of his deductive scheme; upon them devolves the office of saving its universality and certainty. These are the axioms. The certainty of these our philosopher has guarded by testing the ideas forming them. No "deceptive notions" must creep into them. Deceptive notions are those which appear to be possible but are really contradictory.[2] The test of these eventually brings up Wolff's whole method of insuring certainty and truth.

A rigorous rational ideal demanded a long analysis to test possibility and hence certainty. With Wolff it was different. Observation was as final as logic. The senses were co-ordinated with reason.

In the following paragraph he gives an "*a posteriori* test of possibility." "What things we observe in one and the same subject, these things are not mutually repugnant."[3]

Again he says that "ideas are certain if we can discover their possibility," and "since experience shows us that the things exist from which it also gives us the ideas, so we also discover that ideas are possible." "We have two ways, therefore, by which we attain to a knowledge of the truth. One grounds itself in the senses, the other in the reason. So "we use in discovering the truth . . . either the senses alone, or by reasoning from other things known we gain knowledge not before possessed. In the former case we say the truth is discovered *a posteriori*, in the latter *a priori*." "So that in Philosophy principles must be derived from experience which are demonstrated by experiments and confirmed by observation. . . ."[4]

---

[1] P.R., §§ 427-429 and note.
[2] L., § 135.
[3] L., § 535; O., § 47; M., §15 K. Ch. I.
[4] G., § 372; L., § 663; Intro., § 34; O., § 47.

From these quotations selected from a multitude of the same tenor, it is once more seen how the empirical element is decisive and enters into even the final test for certainty with the so-called master systematizer of rationalism. Certainty depends upon the traditional contradiction of subject and predicate, but the contradiction itself is discernable either by analysis or by observation, by reason or by the senses, and these two are co-ordinated and equally final.

Wolff's premises have now been analyzed one by one and all end finally in sources admittedly empirical. In his own mind he may still have held to the belief that theoretically, at least, all his ideas, definitions and axioms might be deduced from one primary idea, but actually he certainly gave no single illustration of the method or the manner.

As a whole his system is incomplete. The two principles of Leibnitz are as far asunder as ever; indubtable experience turns out to be simple observation; ideas are made up of observed attributes of things; definitions are similarly derived and are ultimately dependent upon the senses for a test of their certainty.

Yet on the surface all is fair. Reason promises to accomplish all things. All sciences appear to be rationalized. Even details of the most practical nature can be settled by the academic thinker. In architecture, for example, through the concept "utility," he can *a priori* guage the width of a window, for should it not be wide enough for two to look out at once?[1] With this so distinctively Wolffian bit of logic we turn to his great diciple Kant.

---

[1]Baukunst, § I.

SECTION III.

THE RATIONALISM OF KANT.

Introduction.

Kant's whole precritical activity may be viewed as a search for Wolff's data and the reduction of these to the lowest terms possible. The Delucidatio begins with a "new" explanation of the primary principles of metaphysics. The New Idea of Motion and Rest proceeds by the empirical method to obtain the idea of motion. The False Subtlety arrives at many immediately perceived judgments as ultimates in experience. The Only Possible Proof for the Existence of God, as its subject indicates, seeks an improved method for *logically* demonstrating the existence of God, the archetypal idea of rationalism. The attempt of the Negative Quantities to ground the law of sufficient reason, one of Wolff's co-ordinate principles, reveals the ancient central difficulty of the system and leaves even the master mind of Kant halting and confused. The Examination of the Clearness of Moral and Religious Principles clears up the confusion to the extent of differentiating the sources of mathematical and philosophical ideas, the former being made and the latter being given. Finally, still in quest of the data of logic, the Dreams of the Ghost-Seer brings the long search for the springs of ideas not to a single source, nor to reason alone, but to several possible sources in experience. At last the Dissertation of '70 fixes the genesis of human experience in the *a priori* forms of sensibility and categories of judgment, and bases the modified rationalistic system upon a foundation impossible to overthrow because completely inaccessible.

Through it all, too, runs the thread of increasing empirical data until it is lost in the unknowability of the thing in itself. Intuition of objects, admitted by Leibnitz as merely incidental to rationalism, co-ordinated by Wolff with reason as a source and test of truth; accepted originally by Kant in the unimportant Leibnitzian sense, rises gradually in the precritical writings to larger and larger proportions until it destroys both the universality and the certainty of the deductive method.

CHAPTER I.

Kant as a Wolffian Rationalist.

The original position of Kant with reference to epistemology has been called Wolffian. That means, first of all, that he was a rationalist. He accepts without question the dogmatic assumption that pure reason can know all. This was the popularly accepted position of Wolff, although, from the first, eclecticism was recognized as a minor element in the great systematizer's structure. In the literary form of his early treatises, in his approach of the problem, in subject matter and in the method of solving his problem by temporizing with experience, Kant was following Wolff's system as it was popularly accepted.

The form of his first metaphysical treatise,—Principiorum primorum cognitionis metapysicæ nova delucidatio, 1755,—is a splendid illustration of his close alliance with the school. His propositions are precisely laid down, his ideas are distinctly defined, his conclusions and corollaries are drawn and his scholia added with the exactness of the mathematical model handed down from his forefathers in the faith,—Spinoza, who deemed it incumbent to cast his thoughts in the straightest mathematical forms; Descartes, who invented analytical geometry; Leibnitz, a co-originator of differential calculus; and, finally, Wolff, Kant's immediate forerunner, the formulator and popularizer of rationalism in Germany.

While the general form of the treatise immediately attests its relationship to rationalism as a whole, a closer examination reveals its standpoint to be essentially and characteristically Wolffian. The very subject of the treatise indicates Kant's point of attack. It professes to be a new examination of the prime principles of metaphysical knowledge. It was in these principles or premises of syllogisms that, it will be remembered, Wolff was so completely empirical and unsatisfactory.

The first question concerned their number. Wolff had left the discussion between one, or two, or more principles in vague suspense. Kant takes up this problem at the very beginning of the treatise, "De principio contradictionis" is the title of his first section. "No one principle of all truths absolutely unique, primary and universal is given," but what appears to be such a principle, viz., the principle of contradiction really has a twofold expression, "quidquid est, est," and "quidquid non est, non est" (Propositions I and II). This division he feels is necessary; otherwise, if negative propositions are to be indirectly deduced from affirmative principles, then another principle is tacitly assumed, viz., "Cujuscunque oppositum est falsum, illud est verum." (Prop. I).

This incipient duality grows to confusion in Section II of the "principio rationis determinantis, vulgo sufficientis," as he elects to call it with Crusius, and in improvement upon Wolff. Here he defines "determination" in the sentence, "that which determines a subject in respect to its perdicate is called *ratio*." Ratio is immediately distinguished as *antecedenter* and *consequenter* (Prop. IV), and later the former is spoken of as "*mavis geneticum aut saltem identicam*" (Prop. V, Schol.). The relation of these various principles never does become entirely clear, and the reader is left in the same state of doubt as after Wolff's attempted reductions of all principles to one. It is true that Kant makes one or two brief and half-hearted attempts to reduce everything to the principle of contradiction, but his efforts are neither clear nor well elaborated.

His whole treatment is provisional and inconclusive. As Paulsen well says: "The position taken herein is one in which he could not remain. As soon as he earnestly turned his attention to epistemology, he was compelled to a new

examination of the problem of the identity or the non-identity of the principle of contradiction and the principle of sufficient reason."[1]

The obscurity surrounding Kant's real epistemological system, as outlined in the Delucidatio, with reference to his principles, is a duplicate of Wolff's. In both instances it is patent enough that superficially the well-known rationalistic procedure is followed, in which all truths are reduced to one fundamental proposition and finally to one fundamental idea, viz., God. But just underneath the surface one continually catches disquieting glimpses of an altogether different situation. Instead of one God, there may be many gods; instead of one principle, many principles. Paulsen notes this possibility by saying, "If other and merely incidental statements are combined, another point of view may be arrived at, in which not from one nor from even a few fundamental ideas are all others in the system derived, but rather from as many as one is inclined to originate.[2]

The same motives are present with both rationalists. The situation arises from the overt assumption of the possibility of the rationalistic ideal that reason can know all, and the partial construction of such a system with the tacit admission of empirical elements until such a time as skill in reasoning shall render them unnecessary. In the meantime the empirical modicum swells to the place and importance of a fundamental and indispensable part of the system.

An example of the incidental use is found in Kant's illustration of our knowledge of evil in the world, where he remarks that the "ratio Quod seu cognoscendi" does not require demonstration, "for it is fully revealed in experience" (Prop. IV). This is an example of "Adstructio realitatis definitionis," and is a perfect imitation of Wolff's method in like constructions.

The same empiricism lies even more deeply imbedded in this essay, and concerns itself with the very genesis of one of the chief principles herein considered. In the deriviation of the *ratio consequenter determinatis* Kant says: "The knowledge of the reason of a truth is derived intuitively, or, it is uniformly accepted by universal consent (Prop. V, Schol.). Of this principle Paulsen says it is "nothing else than the mere perception, *experientia*" (Wahrenhmung)[3] Kant's complete absorption in Wolffianism is indicated by his entire lack of any suspicion as to the meaning for rationalism of such an admission.

That such dependence upon empirical sources in the very beginning of Kant's speculative career is not accidental is further substantiated by sentences in the "Praenotanda" of his next epistemological work in the following year. (Metaphysicae cum geometria junctæ usus in philosophia naturali cuius specimen I continet monadologiam physicam, 1756). Here he advises investigators of nature to have great care "in order that something might not be vainly essayed without the suffrage of experience or without a geometrical interpretation," and further states that nothing could be more salutory to philosophy than to admit "nothing except those things which are known only by the immediate testimony of experience." That this immediate experience is not the Cartesian internal experience is shown by the sentence following that, "By this safe method we could perfectly expound the laws of nature."

Here, in the very beginning of Kant's career, far previous to the suspicion of any possible external empirical influences, he is already engaged upon the problem of the reason and the senses. To the investigation he is led by thinkers in his own country. Seizing upon the patent incompletion of the Wolffian sys-

---

[1]P., p. 35.
[2]P., p. 31.
[3]P., p. 32.

tem he endeavors to deal with the principle of contradiction and sufficient reason, builds up his *ens necessarium*, covers up his empiricism with a great show of systematization, derives a couple of secondary principles and finally wanders off into perfectly Wolffian, but more or less inane practical applications under the dignified title of "Usus." At this stage Kant is Wolffian with a vengeance,—in form, in matter, in motives, in nomenclature, in limitation of vision, in superficiality, in admission of empirical elements and in suave dogmatism which assumes the complete possibility of obtaining all knowledge through reason alone without any examination whatever of that possibility.

CHAPTER II.

A Search for the Premises of Logic.

It will be kept in mind that Wolff left the origin of his premises in a most unsatisfactory state. In his Logica he says, "The rules of logic are sufficient for discerning truth by reason along. For if both the premises of any syllogism are true, the conclusion is true; and the premises are true if the propositions forming them can be demonstrated. A proposition which is demonstrated is concluded from syllogisms agreeing among themselves, in which we do not use any premises except definitions, indubitable experiences, axioms and propositions previously demonstrated."[1] In his first epistemological works the empirical standpoint of Wolff was accepted by Kant without further question. However, as already noted by Paulsen, he could not long remain in that position. In his metaphysical work, Die falsche Spitzfindigkeit, he has found the break in Wolff's rationalism and is very seriously engaged in the examination of the origin of his premises. The connection is revealed in his concluding remarks, though the subject of this work calls attention to its incidental character as an announcement of his lecture course.[2] His criticism of the three syllogistic figures and the reduction of the four to one is also incidental. His real criticism of logic is contained in the first of his concluding remarks (§ 6), where he says, "From this appears the essential fault of logic as it has been commonly treated, viz., that it treated of clear and adequate (vollstandigen) ideas before judgments and conclusions of reason, although the former are possible only through the latter." His problem, therefore, is the origin of the data of logic. He is taking up the task exactly where Wolff left it. Granting that logic is sufficient for deriving truth from given premises, the great question remains: Whence come these premises? In this treatise, Kant's first and last concern is with these propositions. At the beginning he says, "To join a mark with a thing is called judging. The thing itself is the subject and the mark is the predicate." Then he distinguishes the two kinds of judgments, the mediate based upon the fact that "Whatever is a mark of a mark of a thing, that is called a mediate mark of the thing (§ 1)." Therefore, "every judgment made through a mediate mark is a conclusion of reason (§ 1)." Further, from this appear the "most general rules of all conclusions of reason," in the positive form, "Nota notæ est etiam nota rei ipsius" (a mark of a mark is a mark of the thing itself); in the negative form, "Repugnans notæ repugnat rei ipsi" (what contradicts the mark of a thing contradicts the thing itself). "None of these rules is susceptible to further proof. For proof is possible only through one or more conclusions of reason. To prove the most general formula of all conclusions of reason would be called reasoning in a circle" (§ 2).

On the other hand, "it is well known to everyone that there are immediate conclusions in which the truth of one judgment will lead immediately to another judgment without a mediative idea. On this account such conclusions are not conclusions of reason" (§ 3).

Interesting as such an advance might be from the point of view of a lecture announcement, to Kant's own thinking it is quite secondary, as shown by

---

[1] L., § 544.

[2] The order of the precritical writings is followed as given in Kant's Gesammelte Schriften, herausgegeben von der Koniglich-Preussischen Akademie der Wissenschaften, Band II, 1905.

his statement that such a change merely advances toward simplicity and that he does not hope very much from it (§ 5).

The important question for him is really contained in his concluding remarks concerning the origin of the data of syllogisms (§ 6). In this paragraph he says that "a clear idea is possible only through a judgment; an adequate idea through a conclusion of reason. . . . In this connection it is to be noted that this judgment is not the distinct idea itself, but the process through which it becomes real; for the perception which arises from a consideration of the object itself is distinct. . . . On this account, one can call a distant idea one that becomes clear through a judgment, but an adequate idea is one that becomes clear through a conclusion of reason" (§ 6).

The origin of clear and adequate ideas now having been satisfactorily explained, the next thought naturally turns to the origin of judgment. For the rationalistic ideal demanded one fundamental proposition from which all others could be logically deduced. Kant's reduction of syllogisms themselves to one law has made some gain. His next step then should be the deduction of the premises of syllogisms from the one principle. This would bring about the long desired unity of rationalism. This goal our philosopher clearly sees. Not only does he see it, but he seems to think that he has reached it. For he complacently says, "I close with an observation which must be agreeable to those who can feel gratified over the unity of human knowledge. All affirmative judgments are subsumed under the general formula, the principle of identity: (Cuilibet subjecto competit praedictum ipsi identicum); all negative judgments are subsumed under the principle of contradiction (Nulli subjecto competit praedictum ipsi oppositum). All affirmative syllogisms are comprised in the rule *Ncta notae est etiam rei nota ipsilus;* all negative under the rule, *Oppositum notae opponitur rei ipsi.*" (§6).

Gratification at this long desired accomplishment, however, is somewhat lessened by the obscurity of the connection between the principle of identity and the most general rule of syllogisms. Evidently the most general rule is not deduced from the principle of identity, for Kant has very carefully made it plain that it can not be proven and that it is immediately discerned.

However, this slight dissatisfaction is immediately swallowed up in the confusion of mind following his very next sentence, "All judgments immediately subsumed under the principle of identity or contradiction, that is, those in which neither the identity nor the opposition is recognized by an intermediate mark (for example, not by means of an analysis of their ideas) but are immediately known, are undemonstrable judgments; those which can be mediately known are demonstrable." Then the climax of these statements comes, "Human knowledge is full of such undemonstrable judgments. Before any definition whatever, some of these judgments arise as soon as in order to obtain a definition, one represents as a mark of the thing, any attribute which one recognizes next and immediately in the thing itself."

Should an abortive attempt at unifying all knowledge brings one back into the Wolffian atmosphere. The patent incompleteness of Wolff's system moved Kant to attempt to perfect it. The total result is that he arrives at exactly the same point as his master. For the historian one positive result comes from the study of this essay, namely, that Kant is awake to the incompleteness of the current rationalistic scheme; and secondly that he endeavors to complete it by the Wolffian method of falling back upon empirical data. He leaves the problem with a law of identity, a law of contradiction, a most general rule for the syllogism, and an innumerable host of immediately perceived judgments surrounded by a more or less hazy atmosphere of "ideas" and "sensations."

CHAPTER III.

A Deduction of the Principal Idea of Rationalism.

Der einzig mogliche Beweisgrund zu einer Demonstration des Dasseins Gottes begins with a criticsm so vitally destructive to traditional rationalism that it seems no longer possible as a method, but ends with a sturdy deductive argument for the archetypal idea of the system. Part First is devoted to the negative and radical discovery that existence is no predicate at all, and therefore never a matter for definition or deduction. This is in direct contradiction of Wolff's *principium individuatonis* and hopelessly destroys the possibility of making the rationalistic method universal. The position, however, is not fraught with such dire results for Kant. He is still blindly following the master-systematizer Wolff, who, though defining things so as to include existence, nevertheless forms his definitions from the attributes indubitably experienced. As the master's logic began with "axioms, definitions, and indubitable experiences," Kant feels he has made some advance when he says, "One must not expect me to begin with a formal definition of existence. One would almost wish that this would never occur, where it is so unsafe to form a definition with any assurance, which is really the case more often than one would be led to believe. I will proceed as one who seeks the definition and assures himself beforehand of what he can say with certainty, affirmatively or negatively, of the object defined, although he has not yet discovered in what the complete idea of it consists." (Sec. I, Obs. I.) He does not for a moment perceive the essential empiricism of such a process. His method is really Wolffian and therefore, to him, rational. Both method and point of view are illustrated in the following: "If one understands that our organized knowledge finally ends in unanalyzable ideas, then one also comprehends that some ideas exist which are nearly unanalyzable, that is, those in which the marks are only a little clearer and simpler than the things themselves. This is the case with our definition of existence. I admit freely that through such a definition the idea of the thing defined would be distinct in only a very small degree. But the nature of the object in its relation to the power of our understanding permits no higher degree." (Sec. I, Obs. I, §2). Thus Kant agrees both with Leibnitz who doubted the possibility of complete analysis, and also with Wolff who overtly admits as final data indubitable experiences of things.

Such a view is further strengthened by Kant's ground of proof for God's existence. While omitting the perfection idea of both Leibnitz and Wolff and criticising the latter's definition of existence as "an elaboration of possibility" (Sec. I, Obs. I, §3) he nevertheless seizes upon Wolff's fundamental notion, viz., possibility, and with the test of contradiction deduces the existence of God by "the only possible argument," viz., the purely rationalistic one (Sec. I, Obs. II, §§1-4; Obs. III, §2).

Had Kant been a real empiricist depending wholly upon senses for final certainty, he would have proceeded to adopt the cosmological proof which he describes (Sec. III, §3), and which, he says, is famous and popular through the Wolffian school but is wholly impossible (Sec. III, § 3). Instead he proceeds upon the essentially Leibnitzian process of showing the necessity of something because of the essential contradiction of universal impossibility (Sec. I, Obs. II, §§2, 3, 4, Obs. III, §§1-4). He believes explicitly that he has accomplished his rationalistic task. "The ground of proof for the existence of God, which we have given is completely built upon the proposition that

something is possible. On that account it is a perfectly *a priori* proof. It is developed neither from my own nor any other spiritual existence nor from the physical world. It is, indeed, taken from the inner nature (Kennzeichen) of absolute necessity." (Sec. I, Obs. IV, §4).

It is not the purpose here to criticise the proof, except to say it contains the Leibnitzian fallacy of proceeding from general existence to the particular existence of God without warrant. The interesting fact to note is that Kant in his own mind is emphatically a rationalist. With the method falling to pieces in his very hands, he is still possessed of the fatuous notion that somewhere, some time, by some understanding, the unanalyzable notions will be followed back to their very foundation, "the necessary Being," the last real ground of all other possibility (Sec. I, Obs. III, §3). "Since the data of all possibility must be found in him, either as conditions or as consequences given through him as the first real ground, so it is perceived that all reality of one or the other kind is to be comprehended through him" (Sec. I, Obs. III, §6). With that the last suspicion of any conscious empiricism must die out. All is stanchly rational. Even Kant's negative criticisms are motived by rationalism and directed really toward strengthening the system. He refuses to use the empirical data of self or other existences or even the perfection of God based directly or indirectly upon his perceived attributes or works. Leibnitz had been compelled to posit a "disposition to exist" in ideas in order to fill full his perfect world. The Wolffian school had proceeded from the perceived world to God as first cause. Kant rebukes both with a purer deduction. To save himself from admitting existence as an attribute in the definition of divine perfection, he inadvertently and unconsciously destroys all hope of discovering the existence of things by pure reason alone though he resolutely reaffirms the possibility of it.

CHAPTER IV.

The Confusion concerning the Principle of Sufficient Reason.

One of the problems which had constantly harassed the minds of rationalists was the ground of existence or of the principle of sufficient reason. Leibnitz had labored to connect the principle with the law of contradiction, but was saved from methods too easy and too superficial by his keen ability to criticise his own efforts, and prevented, according to Paulsen, by the theological desire to retain the freedom of God. Wolff, less religious and more obtuse, attempted the same problem and gained the reputation for having succeeded. How superficial and empirical his solution was has been shown above. Kant with his critical faculty stirred, but his dogmatism intact, early perceives the insufficiency of the solution and tries to strengthen it by new arguments.

In the Negativen Grossen, he begins his introduction with the proposition afterwards further fully developed, that "The use which one can make of mathematics in philosophy consists neither in an imitation of the method of the former nor in the real application of its principles to the objects of philosophy." He does admit, however, some applications which may prove helpful. Among these is the concept of negative quantities, the consideration of which leads to the destruction of Kant's certainty in a large portion of rationalistic deductions by the conclusion that logical contradiction and real contradiction are two entirely different things. "I understand well how a consequence can be demonstrated from a ground by the law of identity, because it is discovered by analysis of the ideas contained in the ground . . . and this connection of the ground with the consequence I can clearly comprehend because the consequence is really identical with a part of the fundamental idea; and, since it is already comprehended in the ground, it is demonstrated from it by the law of identity."

Then follows the criticism of the whole rationalistic process dealing with truths of fact: "How anything can come from something else but not by the law of identity is something I would gladly have made clear to me. The first kind of ground I call logical ground, because the relation of ground to the consequence can be viewed as logical, viz., distinctly according to the law of identity. The ground of the second kind I call real ground because the relation involved certainly concerns my true ideas, but what kind of relation it is, can be in no way determined." His terse summation of his problems then is, "How shall I comprehend the fact that because one thing is some other thing should be?" (Chap. III, General remark).

Such a striking similarity to Hume's problem, amounting almost to verbal identity in formulation, has caused some writers, like Fischer, for example, to insist stoutly upon this as proof final of external empirical influences. However, as Paulsen has well noted, this very similarity, with absolute silence on the source of empirical influence, makes a strong argument against any such assumption. It is inconceivable, too, that Kant should have derived the problem from Hume without the Humian answer. It is equally inconceivable that Kant would have hesitated in his un-Kantian indecision if he were at this time at heart anything but a rationalist. For even after ruling out a Humian answer, there remained most illustrious examples in Wolff's deductions of the law of sufficient reason, in the formation of ideas, definitions, and even axioms, all based upon inductions as clear as any of Lcke's or Hume's. Paulsen, at this point, believes that if Kant had given an answer to the question, it must have been empirical, and cites Leibnitz as giving such an illustration in his deduction

of the *verites de fait*. Without doubt Kant did have an answer, and that empirical, within the borders of his own school. He himself had already included large empirical sources in his previous works. Why then did he hesitate? For the simple reason that he *was* a rationalist. All the previous empirical answers had viewed as merely incidental and temporary, waiting for verification by deduction. Some philosophers of the school, indeed, and notably Wolff, had pretended to make, and had received credit for making, this final reduction of all principles to one by stringent analysis. Though such reductions had not been altogether satisfactory, yet no rationalist doubted their ultimate possibility. By his critical investigation, Kant had uncovered, in his discovery that logical ground was different from real ground, a fundamental difficulty to the consummation of a method so unquestionably hitherto accepted. The answer, to one free from rationalistic training, would have been quick and easy; to one grounded in the school as in a religion, accepting its primary assumption as a dogma, such a sudden, complete, and radical change was impossible. Really Kant's true question was: *By deduction* how shall I comprehend the fact that because one thing is, some other thing should be?[1]

That his solution of this difficulty, at which he hints in the concluding paragraph, as well as his motive for reaching it, are both rationalistic is shown by these statements: "I have pondered over the nature of our knowledge with reference to our judgments concerning grounds and consequences, and at some time I will publish (darlegen) the result of these observations."[2]

Further, that he thinks of this solution as rationalistic and not empirical, as Paulsen suggests, nor Humian, but Leibnitzian, is at least indicated by the suggestive sentence: "There is something important and as it appears to me quite true, in the thoughts of Herr von Leibnitz: The soul comprehends the whole universe in its imaginative faculty, although only an infinitessimally small part of these perceptions (Vorstellungen) are clear. In fact, all kinds of ideas must rest upon the inner activity of our spirit only as their ground. External things may well contain the conditions under which, in one way or another, they may appear to consciousness (sich hervorthun) but do not contain the power to unfold themselves in their real essence (wirklich hervorzubringen). The thinking faculty of the soul must contain the real-grounds for all of them, as far as naturally they arise in it, and the perceptions (Erscheinungen) of all the rising and passing knowledge are to all appearances merely the agreement or disagreement of this activiay."[3] This suggestion of Leibnitz, according to Paulsen, becomes afterward the thesis of the Dissertation of '70: "Knowledge of facts by pure reason is possible . . . through this fact, that the mind contains the fundamental principles of all activities of knowledge."[4] This assumption likewise becomes the backbone of the Pure Reason and all the new Kantian philosophy.

---

[1]Paulsen gives these reasons for not accepting Humian influence: 1. The Humian formulation of the problem without the Humian answer. 2. Had he received the problem from Hume, Kant would have named Hume with others whom he cites. 3. He treats it as a great dicovery. 4. Says he has thought over it some time. 5. Promises a solution. 6. Gives the negative but not the positive side. 7. And approaches the problem altogether differently from Hume. 8. Mendelssohn writing on the same subject, does not fully appreciate Hume's skepticism. (Paulsen, pp. 49-57).

[2]Ibid.

[3]Chap. III, Remarks on the Second Number.

[4]P., p. 103.

The total result from a close study of the Negative Quantities in not, therefore, so destructive of Kant's thinking as a superficial view would suggest. He has not consciously surrendered the ideal of his method. As he seems to recognize them, his motives come wholly from the rationalistic development and specifically from the unfinished tasks of Wolff. The only solution hinted at is distinctly rationalistic and specifically Leibnitzian. Within his own school he still seeks a solution for a radical systemic defect, the seriousness and logical effect of which he does not yet fully comprehend. Now he sees as in a glass darkly; eventually he will see face to face.

CHAPTER V.

Source of Ideas.

The suspicion grows in the reader's mind that during his first essays in the realm of criticism, Kant is somewhat sensationally disposed. He begins so boldly, with such apparently sweeping and radical attacks upon his own school, that one momentarily expects to see him come out a full-fledged skeptic or an empiricist at least. However, just before launching out upon new seas of thought, he tacks about and makes port again very close to his old moorings. At any rate, such is the story of the Deutlichkeit der Grundsatze der naturlichen Theologie und der Moral. Here again, Kant's critical talent is engaged with the unfinished task of Wolff, the uncertainty of the data, which seemed always points of exasperating incentive for further investigation. The search for data began in the Delucidatio, was evident in the Falsche Spitzfindigket, was only half-satisfied in the Einzig mogliche Beweisgrund, hung in absolute doubt in the Negativen Grossen and now in the Introduction reappears almost belligerently with: "I will allow therefore, as the sole content of my treatise such principles of experience and immediate consequences deduced from them. I will trust neither the teachings of philosophers whose uncertainty is the occasion of this present work, nor definitions which so often deceive." This he does because he is seeking to answer the question, "What would be the scientific procedure by which metaphysics would attain both its rightful degree of certainty and its method?" Then follows one of his radical departures from the rationalistic faith under the topic: "Mathematics arrives at all its definitions synthetically; philosophy, however, analytically." The text goes on to elaborate: "One can arrive at every general idea in two ways; either through an arbitrary synthesis of ideas, or through abstraction from that knowledge which has been made distinct through analysis. Mathematics arrives at definitions in no other way than the first. However, the case is entirely different with the definitions of philosophy. Here the idea of a thing is already given, but confused and not sufficiently distinct." (Obs. I, § 1).

The new position is modified, however, by continuing in the analytic method. "It is the business of philosophy to analyse ideas given confused, and make them complete and certain. (Obs. I, §1). Frequent repetition of this thought shows how clearly this view is held.

The certainty of this analysis is the next consideration, for it is Kant's express purpose to search for a method of philosophy or metaphysics (both practically identical in this essay, Obs. II, §1) which would give certainty. While the second chapter is devoted largely to the method of obtaining certainty, his third centers upon a test of certainty.

The method for the "highest possible metaphysical certainty" is succinctly reduced to two rules: "The first and best is this: that since a beginning is not made with definitions, the mere nominal definition must be sought somewhere, *e. g.* anything is necessary of which the opposite is impossible. But even here there are but few cases where the clear, distant idea can be confidently seized upon at the beginning. More often one must seek carefully among objects for those elements which are immediately certain, even before a definition is obtained therefrom. Consequences are then drawn and attempts chiefly made to form wholly true and certain judgments of the object without dependence upon a hoped-for definition which must never be attempted except when it clearly offers itself from the most patent judgments."

"As a second rule, immediate judgments of objects should be selected with reference to those attributes which are certainly and immediately met with in the objects, and after it is certain that one attribute is not contained in the other, the judgments should be applied like the axioms of geometry as foundations of all consequences." . . . "The proper method of metaphysics has the same fundamental principles as that which Newton introduced into natural science and which was frought with such fruitful results." (Obs. II, § 1).

So much for method. Now for the test of certainty. "One is certain in so far as one knows it is impossible for a bit of knowledge to be false." (Obs. III, §1). "All true judgments must be either affirmative or negative. .. .. .. The proposition, therefore, which expresses the essence of every affirmative proposition, and consequently contains the most general formula of all affirmative judgments is: To every subject is properly assigned a predicate which is identical with it. This is the principle of identity." The opposite is the law of contradiction. "Both together make up the chief and most general principles in the formal understanding of the whole human reason. . . . Every proposition is undemonstrable which is immediatley subsumed in thought under one of these most general principles and cannot otherwise be thought *i. e.*, when either identity or contradiction resids immediately in ideas and cannot be discerned by analysis through an intermediate mark. All others are demonstrable." For example, a body is divisable, is demonstrable; but a body is composite, is immediate, in so far as the predicate can be thought of only as an immediate and first mark in the idea of the body." (Obs. III, §3).

Thus does the much-promising distinction between mathematical and philosophical ideas melt down to a perfectly rational basis. If identity and contradiction are jointly "the chief and most general principles" of the whole human reason, and other propositions are subsumed under them either immediately or mediately, then the original distinction of method seems to disappear. "Metaphysics, therefore, has no other formal or material grounds of certainty different in kind from those of mathematics." (Obs. III, §3).

The only distinction remaining is in the origin of the elements of the two kinds of ideas, mathematical and philosophical. The erstwhile differentiation between the method really, then, resolves itself into the question of the data of the two systems; mathematical ideas are made; philosophical ideas are given. This latter source of ideas is made necessary by the rejection of the theory that definitions can be made which will include existence. This new criticism of the method of philosophy is merely a further application of Kant's former discovery, and though a radical departure from the thinking of his day, yet nevertheless, is not after all so important for rationalism as a system. For rationalism had merely held the mathematical method as an ideal. It was not concerned vitally with making its method absolutely conform to that of mathematics, but only with making it theoretically dependent for all knowledge upon reason alone. Kant's criticism therefore, lies in the first place, not against rationalism, but against those philosophers who attempted to make the methods of the two sciences identical. He specifically mentions Wolff. (Obs. I, §1).

On the whole, at this period, Kant is a rationalist in intention. Indubitable experience is the source of philosophical ideas; contradiction is its test; logic is its method. He may close this little essay with a satisfied sigh, viewing with content his logical structure resting upon the dogma that if analysis *could* only be carried far enough by some superior reason even the multitude of undemonstrable judgments concerning perceived attributes could be connected with the archetypal concept of God or Being.

CHAPTER VI.

A New Class of Ideas Discovered.

It is generally accepted that the Dreams of a Ghost-Seer marks the high-tide of Kant's skepticism. So characteristically Humian is the viewpoint that writers like Fischer treat it as the culmination of Hume's influence begun in the Negative Quantities. Others, while not certain when the original empirical impulse occurred, accept the Dreams as indubitable evidence of motives derived from external sources.

However, the similarities between the German and the Scot are no more striking nor as significant here as in the earlier work. If the "awakening" occurred at the time of the Negative Quantities, Kant's progress in skepticism was small indeed. For then the Dreams is very little more than an unfinished and partial comprehension of Hume's sweeping destructiveness. Upon such a theory Kant's obtuseness is intolerable. If the empirical seed was sown in 1763, it fell upon poor soil and the harvest 1766 was disappointingly meager.

For at this period the similarities between the two writers are more superficial than real. Like those of the Negative Quantities, they lack certain essentials which cannot be accounted for in one who is already a disciple gifted with more than ordinary acuteness. But they can be explained upon the supposition of independent development without doing violence to Kant's mental acumen nor to his historical progress.

As noted in the introduction above, Kant's whole pre-critical development can be viewed as a search for Wolff's data. Die Traume eines Geistersehers brings his long search for the original and primary idea to a confusing multiplicity of ideas. Besides the two classes he has already discovered, another class develops, the derivation and test of which are utterly inexplicable by the epistemological method he has been following. Neither logical analysis nor direct inspection apply to them. Mathematical ideas are made, and therefore contain as much certainty as is put into them; philosophical ideas are confusedly given and need to be made distinct and certain, according to the law of identity; but this third class, like the idea of spirits, are not perceived immediately by the senses, but found in popular belief. Yet for the continuance of metaphysics they seem to demand both existence and certainty. "If the idea of spirit could be abstracted from our own experience-concepts, then the process of making it clear would be easy, in that it would be merely necessary to indicate those marks which the senses make clear to us in this kind of beings, and by which we differentiate them from material beings. But now we are considering spirits, even though it is doubtful whether such beings exist at all or not. Therefore the idea of spiritual natures cannot be treated as one abstracted from experience. But if it is asked: How has this idea in general been arrived at, if not through abstraction? I answer: Many ideas spring up from obscure and dark conclusions occasioned by experience, and transplant themselves upon other experiences without the cognizance of either experience in general or of the conclusion which built up the idea. Such ideas can be called interpolated (erschlichende). Of such there are many; some mere delusions of imagination, but some indeed true, since not all obscure conclusions are erroneous." (Part I, Chap. I, Note.)

There is a possibility, however, of arriving at the meaning of such ideas. For they do acquire "a certain meaning which can be developed only by bringing out this hidden sense by comparing all cases of its application which agree

or disagree with it." (Part I, Chap. I, Note.)

This perfectly empirical method is pursued with the idea of "spirit" and the conclusion is expressed in these words: "Finally, I either know this little of the spiritual attributes of my soul, or, if any one does not admit even that, I am content to know nothing at all of it." (Part I, Chap. I.)

This skepticism concerning the soul enlarges and envelopes the certainty of relations and the validity of metaphysics itself. "For in the relations of cause and effect, substance and action, philosophy is serviceable for analyzing perceptions and reducing them to simpler sensations. But when finally the fundamental relations are reached, then the story of philosophy ends, and how anything can be a cause or possess any particular power is always impossible to understand by reason, but such relations must always be derived from experience. For the logical method proceeds only according to comparison by the law of identity and contradiction. But as far as anything is a cause, something is asserted on account of something else, and there is, therefore, no connection discoverable through the agreement. So, too, if one does not wish to look upon the thing as a cause, no contradiction appears; since it is not self contradictory to assert something and thereby eliminate something else (aufheben). On that account, the fundamental ideas of things as causes are wholly arbitrary and can neither be proven nor contradicted. . . . All judgments such as those as to how my soul moves my body, or in what relation it now stands or will stand with beings of the same order, can be nothing more than imaginings (Erdichtungen) and of far less worth than those propositions of natural sciences which are called hypotheses. . . . (Part II, Chap. III.)

Thus does Kant reach his most advanced skeptical position. There remains nothing but immediate sense-experience and induction; for these peculiar ideas of existences and relations are independent of direct experiential verification. The bounds set by Wolff to philosophy and the empirical test, co-ordinated with contradiction, have resulted in their logical and natural outcome. If data come from immediate experience, and immediate experience alone decides the certainty of ideas, what are we to do with those ideas of existence and relation which are not open to inspection of this sort? To this Kant's preceding development has no answer.

As Paulsen well says, the Dreams of a Ghost-Seer present nothing essentially new. This latent difficulty has been shadowed forth over and over again. It came definitely into Kant's purview in the Negative Quantities. Then it concerned causation alone. Now it has grown in his comprehension and includes in its skepticism ideas clearly perceived as absolutely essential to his system of rationalism. Such a comprehension leaves him bewildered, though his genius is stopped but for a time.

CHAPTER VII.

Kant's Position before the Dissertation of '70.

In a review of Kant's so-called precritical development, two main tendencies are clear, both of them based upon the inherited dualism of his system: the rational and the sensuous elements of the world.

With practically no deviation he follows the rational method throughout, always abiding by logical analysis and the test of contradiction for the development of distinct ideas. On the other hand, he accepted the admission of sensuous knowledge as practically expedient, but theoretically unnecessary, for the data of his system. The one increasing purpose of what has been mistakenly called his empirical career, was in fact the continuous and earnest attempt to follow these data to their sources and to connect them with the other half of his system. In this pursuit—in purpose, steadfastness, acuteness, and originality—he was much nearer to Leibnitz than to Wolff, though all evidence points to the theory that he received from the latter his first and chief conception of rationalism.

In this search for the data, the empirical portion, once admitted as "confused ideas" given in the senses, takes on constantly more and more importance and steadily advances to a place in Kant's thinking equivalent to the co-ordination of such knowledge with the rational as found in Wolff. This came about in spite of the fact that Kant was seriously and vigorously engaged in strengthening the weak points of deduction and apparently succeeded in shutting many doors of entrance to sensuous knowledge by reducing Wolff's generous array of data—axioms, definitions, demonstrated propositions, and indubitable experiences—to confused ideas and immediate judgments. Beginning incidentally in the Delucidatio, this empirical admixture enlarges in the False Subtlety, passes beyond control in the Only Ground of Proof; becomes hopeless of solution in the Negative Quantities, and involving even the existence of God—the key-stone to the whole of rationalism—in the Dreams of a Ghost-Seer brings down the whole system in a mass of skeptical confusion.

For motives it is never once necessary to go outside of the German school and hardly beyond Wolff. Given the loose construction of the latter and the vigorous, clear-cut mind of Kant, and the result is inevitable. Always, too, it must be kept in mind that Kant is a rationalist—genuine, devoted, dogmatic in his belief that it was the all-sufficient and one method needful. From it he never voluntarily departs; all his efforts are toward building it afresh. His movements toward empiricism come from his conception of rationalism as inherited from Wolff, whose basic assumptions drive Kant's incessantly inquiring mind always onward toward the very point he wishes most to avoid. He is a powerful swimmer, but battles against a current too strong for him.

Out of the confusion in which he at last finds himself, several points emerge with clearness:

1. He has not given up rationalism wholly. Certain ideas are given in experience, confused and requiring analysis to make them distinct. The Principle of Contradiction is the touchstone by which they are to be tried out.

2. Certain other ideas—like those of mathematics—are the result of synthesis and contain as much certainty and as many relations as are first put into them. They too must conform with the Principle of Contradiction.

3. Still another class of ideas are neither made by the reason nor given by

sense-experiences, though they insist upon their right to stand for existing things. Such ideas are notions of spirits, cause, unity, necessity, etc., all of which rest upon time or space relations. Of these there is no verification save that of uncertain induction. Such notions lie beyond immediate experience and yet upon them rests the certainty of a whole realm of human knowledge. They comprise that great mass of experience common to the sciences and called metaphysics. Without certainty here, metaphysics is impossible. So emerges the final question: Whence shall certainty come?

With Teutonic immutability fairly developed, with a devotion to certainty and truth quite dogmatic; with an awakened and independent spirit of investigation, with momentum at its maximum, and finally with a solution in his own school and incipiently in his own mind, is the result in doubt?

CHAPTER VIII.

How Certainty Arises in the Knowledge of Things.

During the years between 1766 and 1770 Kant was in a state of mental perturbation. His long training in physics and equally deep schooling in rationalism made it impossible for him to remain in the skepticism of the Dreams. Confronted at last with the skeptical consequences of his hybrid system, he set to work to find a solution. How great were the gropings of this period, is indicated by his cry of a "great light" in 1769.[1] This light is presumably reflected in the Dissertation of '70. In it he "flatters himself" that he has come upon those ideas which he need not change and through which he can test with surety and ease all kinds of metaphysical questions and decide them with certainty.[2]

Such statements as these are suggestive of both the continuity of Kant's preceding thought and the confusion of 1766. The key words of the expressions well state not only his gropings since that date, but also the primary motives of his long development. At last he has found his data and his method, and found them by a complete restatement of theory of human knowledge. For, as many have noted, his Dissertation contains the germ of all the later problems and solutions developed in the Critique of Pure Reason.[3]

The general thesis at last insures certainty in our knowledge of existences. Two general divisions are discernable, constructive and destructive; the first devoted to showing the possibility and necessity of the new thesis (Sections I-IV); and the second, to showing the futility of trying rationally to connect by logical analysis ideas and things (Section V).

Instead of endeavoring to bring certainty into the whole system by somehow bridging the chasm between truths of reason and truths of fact, he frankly recognizes the division and emphasizes the permanency of distinction between the sensible and intelligible (Section II, 3-7), and gains his desired end by introducing a co-ordinate certainty into things sensible, not by the Wolffian device of "indubitable experience," but by the well-known "forms" of time and space (§§ 4, 11, 13-15).

The Traume left him with three kinds of ideas as his data; those given confused in sense experience, those arbitrarily made, and those neither made nor perceived but found in popular belief. By his new solution he has found a sure ground for the first class. Their source is still sensibility, but now each one is so derived that the unknowable sensation portion is informed with *a priori* time and pace forms, giving them universality and certainty independent of observation. (§ 11).

The second class, comprising the mathematical, and formerly containing only arbitrary certainty, by the same means now rises to the dignity of absolute certainty, so that "pure mathematics, then, expounding the form of our entire sensuous cognition, is the organon of all intuitive and distinct knowledge, . . . (and) it confers cognition perfectly true . . ." (§ 12).

Finally the third class, those arising neither from sense experience nor from arbitrary synthesis, such as "possibility, existence, necessity, substance,

---

[1]Vierter Reflectionen der Reinen Vernunft, Erdmann.

[2]Hartenstein, Vol. VIII, p. 662, Letter to Lambert in 1770, quoted by Paulsen, p. 101.

[3]P., Chap. 3, p. 101, and note, Hartenstein, Vol. VIII, p. 681.

cause, which never enter as parts into any sensuous representation" (§ 8), and are yet found among common beliefs, and which led to the large skepticism of the Traume, "are given by the very nature of the intellect, are not abstracted from any use of the senses, and do not contain any form of sensuous knowledge as such" (§§ 6, 8).

Thereupon follows the sweeping criticism of all his long and vain attempts of previous years and his deliberate rejection of rationalism as it had been taught him though with a certain gentleness for his old master. "From the foregoing it will be seen that the sensuous is badly expounded to call it the *more confusedly known* and the intellectual the *distinctly known*. For these are only logical distinctions and plainly *do not touch* the *data* underlying all logical comparison . . . The writer fears that Wolff by the distinction between the sensuous and the intellectual, which to him is only logical, checked, perhaps, wholly, and to the great detriment of philosophy, that noble enterprise of antiquity of discussing the nature of phenomena and noumena, turning us from the investigation of these to what are frequently but logical trifles" (§ 7). Thus in his own mind Kant connects Wolff both with his most fundamental and long-studied difficulties, and with their final solution. In fact, he still retains the Wolffian use of reason "in sciences whose primitive concepts as well as axioms are given by the sensuous intuition," where the use "is only logical, that is, by it we only subordinate cognitions to one another according to their relative universality conformably to the principle of contradiction, phenomena to more general phenomena, and consequences of pure intuition to intuitive axioms." But in metaphysics the distinctive Kantian procedure is manifest. Here the intellect finds its real, not its logical use, though it still depends in some degree upon data "where the primary concept of things and relations and the very axioms are given originally by the pure intellect itself" (§ 23).

So the old rationalism disappears and the new arises to take its place. The problem of the old is surrendered; for the problem of the new is not with real things and ideas, but with things as they appear in consciousness with their certainty guaranteed by the dispositions of the sensibility and intellect. To some extent in nomenclature, and much more in general attitude, we are periliously near the virtual, innate ideas of the Leibnitzian soul with its capacities, preformations, and dispositions, except that it has required the revolutionary daring of the Konigsberg philosopher to endow sensibility with similar preformations and dispositions.

Looking upon Kant's development as a whole, we see it grow from the unfinished problems of Wolff. Beginning with the latter's unsatisfactory reduction of all principals to one, Kant was urged on and on by increasingly deeper investigations into his master's data, finding the concept of God at first self-evident and finally doubtful, puzzled again and again over the possibility of knowing *things*, and brought to a halt by the nature and derivation of the sufficient reason. Finally, however, still led by motives in the older rationalism, he makes a daring application of the principle of innateness and so apparently, for a time at lease, presents a new and startling restatement of the nature of experience.

In the long process is there a necessity for empirical influences external to the rational school? Apparently not. One stage merges into another, one motive suggests another, one problem reveals another in a fairly orderly array, until the weakness of the method shows itself at last in complete insufficincy and demands a total readjustment.